THE MODERN NOTION OF FAITH

A DISSERTATION

Submitted to the Faculty of Philosophy of the Catholic University of America in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

BY

JOACHIM M. BAUER

Of the Order of Preachers

THE CATHOLIC UNIVERSITY OF AMERICA
WASHINGTON, D. C.
1930.

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Fr. L. M. Osbourne, O.P.

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PREFACE

The foundations of modern thought and philosophy are continually shifting because of their intimate relation with, and dependence upon, modern science. There is a constant cry for a readjustment of philosophy and religion in the light of the most recent findings and theories of science. But the philosopher of religion who adopts an attitude of ready compromise whenever some new theory of science seems at variance with the truths of religion, rather than make a critical appraisal of what science has to offer, is a victim of the fallacy of the uniform method of science. And sad to say, there are altogether too many apologists of religion of this kind. Because some new theory offers a better explanation of given facts in physics, this does not give that theory a valid application in the realm of biology, much less in philosophy and religion. What is needed is an evaluation of these new theories according to sound principles of philosophy, and not a perpetual compromise between religious truths and the successive theories of the empirical sciences.

This spirit of compromise and obeisance to every new theory of science has given us varying concepts of God. Each has been an expression of the prevailing outlook of science. To the rationalistic scientists of the latter part of the nineteenth century the object of religion was the Unknowable. Later psychology made God nothing more than a mental projection. In our day emergent evolution has given us a Space-Time Deity, while an "organismic" physics offers us a God

who is the "Principle of Concretion." Through similar compromises modern thought has gradually reached a state where it denies practically all notions of the supernatural. The Church is no longer conceived as a supernatural organism, the mystical body of Christ; religion has become an attitude of friendliness to the universe; Christ is no longer God; and the idea of such a fact as supernatural revelation is now passé. It is not surprising then that there are new notions of faith, or that these new notions should exclude the supernatural in the traditional sense of that term.

The study of modern notions of faith, like the study of modern religious problems, is essentially a philosophical study because modern theology has long ceased to be a science based upon supernaturally revealed truths. The study of the various religious problems of contemporary thought offers a field rich in material for the philosopher who will familiarize himself with its trends, as such a study reveals the philosophical errors back of the chaotic state that reigns in modern philosophy and religion.

Our survey of the philosophical and religious literature of the twentieth century has, we believe, revealed three outstanding tendencies which attempt a solution of the modern problem of religious faith. In this philosophical study of these three typical ideas of a faith which is philosophical in character we have restricted our treatment to the first two notions, the third being summarily indicated in the Introductory to Chapter I. We have first presented these notions of faith as set forth by their proponents; and secondly, we have briefly indicated their origins along with a critical examination of the same in the light of the philosophy of St. Thomas Aquinas.

The philosophy of St. Thomas has been used for the reason that he is the most striking representative of Scholastic Philosophy. His philosophy has stood the test of the centuries, and has the advantage that its terms have always had the same meaning. He is the complement of all that preceded him in Scholastic Philosophy. In him, who is truly an apostle of modern times, we can find a solution to modern problems. And above all his philosophy embodies the unifying tendencies which were so evident in the civilization of the thirteenth century—an age which saw life in all its aspects and coördinated them, a characteristic wholly lacking in any other philosophy of our times.

The concluding chapter briefly indicates the philosophical aspect and approach to the traditional and Catholic idea of faith. This we hope to expand, both in its relation to all three modern notions of faith and in relation to faith as a supernatural virtue and act, in a more complete work when we have finished our study of the third notion of faith which is now being developed similarly to the two which we are submitting in partial fulfillment of the requirements for the doctorate.

The present work was undertaken at the suggestion of the Reverend Dr. Fulton J. Sheen, Professor of the Philosophy of Religion, whose enthusiasm and constant guidance have been a source of inspiration. The author gratefully acknowledges his indebtedness to Dr. Sheen; to the Right Reverend Monsignor E. A. Pace for his deep interest in the work from its very inception; to the Librarians of the Catholic University, the Library of Congress, and the Public Library, without whose assistance the work would have been impossible; and to all others, especially our confrères, who have rendered signal service in countless ways.

PART I

MODERN NOTIONS OF FAITH

CHAPTER I

EXPOSITION OF CONTEMPORARY NOTIONS OF FAITH

INTRODUCTORY.

The study of contemporary notions of God and religion reveals the fact that our age has acquired entirely new concepts of faith. For, ever since the Kantian criticism of the proofs for the existence of God, certain philosophers, instead of criticizing the criticism, have gone on to find new approaches to God. A very natural conclusion was, that since He cannot be known rationally, He must be known non-rationally or by faith. Even Kant suggested this new avenue in the sense that his Practical Intellect offered a God Who was not the discovery of reason but the postulate of conscience.

There is little need to suggest that the term faith as used in philosophic and religious literature of today, is not to be understood in the traditional sense, as signifying a submission of the intellect and will to a revealed doctrine on the authority of God revealing. In its intellectual aspect the traditional concept of faith was that of a gift, a higher vision, perfecting the reason. The new concept of faith approaches the object of its belief in disparate ways, though they all have this in common, namely, the conviction that God cannot be known rationally. For purposes of clarity the modern notions of faith are here grouped

under three general headings, each manifesting one or the other of its characteristics. Modern faith may be considered first, as a hypothesis or a postulate, which is to be tested by experience and is therefore pragmatic; secondly, as a wish or the will-to-believe, which is voluntaristic; and finally, as a quasi-instinctive trust or an instinct which is more or less blind.[1] There is nothing hard and fast about this grouping, or even the grouping of authorities supporting these three notions of faith, since we find these notions occasionally overlapping. But these groupings do indicate three different and distinct tendencies in the modern understanding and interpretation of faith.

The contributing factors which have brought about the birth of contemporary notions of faith have been many and varied. And though science has not been the sole factor in shaping the modern ideas of faith, it has been nevertheless an important influence. That influence has been a direct one in the first group that we shall consider, for faith as a hypothesis or postulate clearly shows the impress of science inasmuch as the empirical method of the sciences is applied to the problem of the validity of religious beliefs. The influence of science in the second and third groups is both indirect and direct. It is indirect in so far as faith as the wish or the will-to-believe, and faith as a more or less blind instinct, are in a large measure the consequence of a reaction to the scientific rationalism of the last century. Scientific naturalism had

[1] This last concept of faith has not been treated in this dissertation. It arises from a contempt for the intellectual element in the act of faith. Some speak of it as a blind trust or confidence in God, others as a blind instinct, while Bishop Charles Gore approximates the traditional idea of faith.

made bold its claim to be able to comprehend the infinite riches of mind and nature within a few mechanical formulas. But man was not satisfied with these. Religious belief was called upon to fill the void left by scientific knowledge. How could man justify his religious beliefs? With reason declared bankrupt, and a widespread distrust of the powers of the human intellect, William James sought to justify faith in *The Will to Believe*, while others appealed to feeling, will, imagination, and every obscure and primitive instinct.[2] The influence of science on both of these groups was also direct, namely, their adoption of the empirical method. Experience became the court of appeal. Moreover, the scientific theory of evolution gave credence to the will-to-believe in accordance with the needs of our "passional nature" on the one hand, while on the other, it seemed to offer a solution for faith as an instinct.

In view of the assertion so frequently made that man can have no rational certitude concerning the object of his religious beliefs, it may reasonably be asked, do contemporary ideas of faith have any bearing upon such much mooted questions as the following: Is the very nature of faith a basis for the oft-repeated charge of a conflict between science and religion? Can a man reasonably and rationally believe what he wishes to believe in matters religious? Is the act of faith something blind like "a leap in the dark"? These questions need not, indeed should not be answered here, but it will be well to bear them in mind as we go along.

In fairness to the advocates of contemporary

[2] Professor Aliotta, *The Idealistic Reaction Against Science*, translated by Agnes McCaskill (London, 1914), Introduction, p. xv.

notions of faith they should be allowed to present their own case. We therefore propose to divide this study into three sections. The first section gives the current ideas of faith sympathetically and uncritically; the second section examines these ideas critically in the light of the philosophy of St. Thomas Aquinas; the third section presents briefly the traditional and Catholic idea of faith in contrast to modern notions of faith.

1. FAITH AS A HYPOTHESIS OR A POSTULATE.

Although the discarding of a philosophical faith and the beginning of what we have called modern faith took place in the eighteenth century, it had its inception in Luther's break with the traditional concept of faith and the philosophy of the Schoolmen. Luther transferred belief from the intellect to the will aided by a partially rational faith. Kant, living in an age dominated by a new world-outlook which was essentially that of the empirical sciences, and influenced by Newton's discount of the speculative power of the intellect, transferred belief from the will aided by faith to the will without the help of reason. And paralleling Luther's emphasis on the necessity of experience, Kant went a step further. In his desperate attempt to save both religion and religious beliefs from the onslaught of scientific scepticism, he transferred faith to the domain of the Practical Reason, establishing the truths of belief through the demands of our moral consciousness. The postulate of the existence of God (the highest good) was justified by a need of the Practical Reason, which is nothing more than human volition in the sense that it is supposed to give a reason for what is willed or believed through

the will. We have no real reason for believing in the existence of God. The possibility of God as the highest possible good, according to Kant, had to be presupposed, as well as the conditions without which it would not be possible to know God's existence, namely, freedom of the will and immortality. Belief thus became something subjective; while faith or conviction, as a product of the Practical Reason, was only a hypothesis or postulate.

Reason could prove nothing. Much less could it know anything about God, immortality and freedom; in attempting to prove them real we only involve ourselves in contradictions. The world of sensation, on the other hand, can be thoroughly organized and known. This knowable world depends upon science. The way was paved for Spencer's famous Unknowable which was the object of religion. The way was also paved for the modern idea of faith as a hypothesis. Its truth must be tested by experience.

The impetus given to the empirical method as a result of the marked advances of science in the latter half of the last century made for its universal application to every domain of human activity. Today it is applied to every field of knowledge, including philosophy and religion. Its spirit has become the *Zeitgeist* of the twentieth century.[3] No truth is final. All truth is hypothetical for science is moving at such a speed[4] that what is "truth" for today will probably

[3] "Modern thought is the outcome of modern science. The scientific habit of mind is the unpredictable factor in the life of mankind today. Its possibilities defy all estimate and prophecy."—W. C. Curtiss, *Science and Human Affairs* (1922), p. 3.

[4] "Science is moving fast nowadays; making more progress than ever before, gaining more ground in the last quarter-century than in any previous century. And science, unlike most human activities, is always

be superseded by a new "truth" on the morrow in the light of fresh evidence or a better interpretation of the available data. Hence the necessity of making hypotheses and subjecting them to the test of experience. As long as they work they are true for all practical purposes. As new facts are revealed, or as previously adopted hypotheses fail to conform with such facts, new hypotheses must be made. Thus it is the method of science, in its quest for further knowledge, to formulate a theory or hypothesis of what is thought to be in accord with known facts, and of what is deemed as possibly true. This tentative explanation or hypothesis is assumed and reasoned upon as if it were certainly true, with the view of reaching a truth which as yet is not surely known. The next step is to verify the hypothesis or theory by an appeal to factual experience. If it explains all the facts, it is regarded as verified; but until it does this, it is merely a working hypothesis, that is, one that

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moving to something new, ever advancing into the unknown. . . . The scientist is always turning over a new leaf. The Book of Nature is issued only in uncut editions, and the scientist has to open its pages one by one as he reads."—E. E. Slosson, *Keeping up with Science* (1924), Introduction, pp. v-vi.

A popularization and an application of these ideas to the problems of life is found in such works as the following:

Julian S. Huxley, *Religion and Science* (1923); *Religion without Revelation* (1927).

Lothrop Stoddard, *Scientific Humanism* (1926).

Roy Wood Sellars, *Religion Coming of Age* (1928).

J. W. N. Sullivan, *Aspects of Science* (London, 1924).

A. E. Wiggam, *The New Decalogue of Science* (1924).

Bertrand Russell, *Icarus, or the Nature of Science* (1924).

J. B. S. Haldane, *Dædalus, or Science and the Future* (1924).

F. C. S. Schiller, *Tantalus or the Future of Man* (1924).

H. G. Wells, *God the Invisible King;* and *Men Like Gods.*

R. A. Freeman, *Social Decay and Regeneration* (1921).

Walter Lippmann, *A Preface to Morals* (1929).

may answer for present practical purposes. A hypothesis, therefore, might be termed a comprehensive guess. This method, which is useful and most valuable in the empirical sciences, has been transferred to the realms of philosophy and religion. Its spirit represents the temper of mind of the philosophers of faith as a hypothesis.

If reason can not prove that God exists, and if even our notion of God is continually changing,[5] how are we to formulate our religious beliefs, how can we even be certain that God exists? Two solutions are offered. The one via faith as a hypothesis, the other via faith as a postulate. In *faith as a hypothesis* we make the hypothesis that God exists since His existence will apparently give us a better explanation of the universe and our life in it, or, it will be useful, perhaps it will even satisfy our needs. The validity of the hypothesis will be determined by our own experience in so far as it does give an explanation of the universe that will give us peace of soul, be useful in our lives, or satisfy the particular needs of our soul. In *faith as a postulate*, we assume that God exists because His existence is necessary to us. The assumption may be the product of our experience, of our reason, or of our imagination. It is an attitude which man takes towards God and the universe, an attitude of expectancy, of hopefulness, or of confidence, in the results that are to be obtained from so living. It

[5] "It is the progress of science which has required philosophy from time to time to revise the concept of God. The great metaphysical task which confronts us today is to reform the notion of God which the mathematical philosophers of the seventeenth century have bequeathed to us, in order to bring it into accord with the new concepts of biological science."—H. W. Carr, *Changing Backgrounds in Religion and Ethics* (1927), p. 74.

stresses our *living* out the assumption that God exists, whereas faith as a hypothesis stresses the necessity of our *testing* and *verifying* His existence *by experience* just as we test any other assumption or hypothesis.

1. Faith as a hypothesis.

One of the leading exponents of faith as a hypothesis is Hans Vaihinger, the author of *Die Philosophie des als-ob*[6] and one of the prominent leaders of the Neo-Kantian school in Germany. According to his philosophy all desirable and worthwhile objects must be treated "*as if*" they existed, even though they do not exist in reality. Faith is then a kind of subjective creation, a living "as if" things were what we would like them to be, though deep down in the bottom of our hearts we know that they are not. Take for example the question of God. Vaihinger would not admit that God really existed. Still there are times, and this is one of them, when "it is convenient or fruitful to treat objects 'as if' they were what in fact and logic they are not."[7] God is only a useful "fiction."[8] It is the *idea* of God and not God which is

[6] (Berlin, 1913).

[7] Ralph Barton Perry, *Philosophy of the Recent Past* (New York, 1926), p. 195.

[8] For Vaihinger the basis of thought is fiction. Fiction proceeds as if a thing existed. It is merely an auxiliary construction or scaffolding which is used in our reasoning processes. The hypothesis, however, looks to reality from which it receives its verification and therefore looks forward to being definitely established. The one is artificial, the other is natural; the one seeks to invent, the other to discover.

"An hypothesis is directed towards reality, i.e. the ideational construct contained in its claims, or hopes, to coincide with some perception in the future. It submits its reality to the test and demands verification, i.e., it wants to be proved true, real and an expression of a reality. Every hypothesis without exception endeavors to establish a reality, and even though we are still uncertain as to the actual occurrence of something

the object of faith and theology, so that this idea is in reality subjective rather than objective. The hypothesis of God will then necessarily depend upon the subjective attitude of the believer. We may say that reason makes God since ideas are the product of our mind, but what we have is not the idea of *God*, but the *idea* of God.[9] Vaihinger therefore goes so far as to say that it does not matter whether God really exists, though in practise we must live and act as if He existed in order that the moral law have a greater sanction.[10] Faith or belief thus becomes a hypothesis which we are to live and act out as though our hypothesis were true. It is to be accepted, nay more, it must be accepted, and man is to live 'as if' God existed if he is to attain to the best and the noblest that is in him. Hence, there can be faith in God, without a real God, because the object of faith is only subjective.

Some accept the hypothesis that God exists because it furnishes a better explanation of the universe. These

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[9] *Die Philosophie des als-ob*, pp. 677, 678, 682, 683.

[10] In this philosophy religion is a duty to ourselves as God is not a substance existing outside of us, but is merely a moral relation with us. Elaborating this notion of religion, Vaihinger says it is not a duty to believe that there exists a moral world-government or a God as a moral world-ruler; our duty is simply to act as if we believed it. Religion is not the belief in a substance of especial holiness, rank or power, from which we can by flattery obtain favors or rewards. It is the conscientiousness, the sacredness of a man's assent, the sincerity of his self-confession. Confess it to yourself. The concept of God is not required, still less the postulate: There is a God—but only the dogma, that is, the idea of God as idea.—*Op. cit.*, English translation, pp. 316, 324, 325.

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hypothetically assumed, we yet entertain the hope that the assumption will eventually prove to be true."—*The Philosophy of 'As If'*, an English translation by C. K. Ogden, based upon the 6th edition of the original, revised for that purpose by the Author (1924), p. 85.

differ from Vaihinger and the Neo-Kantians as the latter do not admit the validity of the traditional arguments for the existence of God, while the former hold that "The five arguments for the Divine Existence . . . afford us the means of applying Theism as a working hypothesis to large classes of facts; and if this furnishes a better explanation than any other hypothesis, we have every right to assert its truth." Here we have faith in God founded on a hypothesis, which is furnished by the intellect, and is accepted because it is the best explanation of the scheme of things in which man finds himself.[11]

Others of this group place emphasis upon the fact that the hypothesis of faith must be put to the test of experience just as we submit a hypothesis of science to experiment. For if faith is nothing more than a hypothesis, it matters little whether we adopt or reject it, because on this assumption the universe itself would go on just as well even though we never placed the hypothesis of God existing. Professor Hocking saw this when he said, "The world would be consistent without God; it would also be consistent with God; whichever hypothesis a man adopts will fit experience equally well; neither one, so far as accounting for visible facts is concerned works better than the other."[12] However, the religious hypothesis, or faith as a hypothesis, gains its force from experience. Man must come to *know* the object of his religious faith. That is why Professor Hocking goes on to say that ". . . no metaphysical hypothesis is antecedently more probable than any other . . . as

[11] J. H. Beibitz, *Belief, Faith and Proof* (1922), pp. 16, 19. Also *What I Believe and Why I Believe It* (1925), p. 163.

[12] *The Meaning of God in Human Experience* (1912), p. 143.

long as we have only probabilities and hypotheses to refer to in these matters we have nothing at all. If the belief in God is simply an hypothesis . . . it is worth nothing at all. Ideas have certain sustaining powers, even though they are wholly our own fabrications; but no idea that is such a pure launch of our own imagination into the unknown—and nothing more—has any permanent sustaining power . . . God can be of worth to man only in so far as he is a *known* God."[13] Hence, if the hypothesis of faith is to have any value for us, God must be known by experience.

The same notion of faith has been worked out and elaborated at length by Sir Henry Jones in his Gifford Lectures, published under the title of *A Faith That Enquires*. In this work we find the supreme example of this type of faith as a hypothesis because here especially does it bear the stamp so characteristic of the scientific attitude towards the entire problem under consideration. For him religion, philosophy, and the empirical sciences are all sciences essentially the same in character because of the similarity of their methods. "Every science carries with it from the first, 'the law' which it is seeking to find exemplified in the facts. It has its own unique and absolutely indispensable hypothesis. There is no science until there is a hypothesis on its trial."[14] What we commonly call empirical sciences are concerned with observing facts as examples of hypotheses or "laws" which they are seeking to establish and verify; these "laws" become the *terminus ad quem*, the something reached after. Religion and philosophy, however, start from ultimate principles which are lived out as

[13] *Ibid.*, pp. 214–215.

[14] *Op cit.* (New York, 1922), p. 50.

hypotheses; and their validity is exemplified and proved by experience.[15] All hypotheses, whether religious or scientific, are in character the same. "There are no differences except those which spring from the comprehensiveness and the finality of the religious hypothesis."[16] "It is for this reason that I call religious faith the supreme hypothesis, because religion bears upon the whole destiny of man and of all that he values, as does the scientific hypothesis upon all that comes within the borders of science."[17] The former embraces the whole universe, it has a world-wide outlook; the latter deals only with "an aspect or a department of what is real." The scientific hypothesis "is always dependent on conceptions which have not been proved. Hence its validity can be directly challenged, and it can be either rectified or rejected by the facts of its own limited field. But a fundamental religious hypothesis is challenged and imperilled from every quarter; and for the same reason, if it is valid, it is not beyond the reach of doubt till it is verified in every quarter."[18] Therefore, if faith is a hypothesis, then the hypothesis that God exists, is not valid, nor is it beyond the reach of doubt until it is verified by experience in every conceivable way.

It would appear, then, that faith as a hypothesis, like a scientific hypothesis, is a mere *guess*, invented by man's ingenuity as a possible solution of the facts before us. It "is a conjecture on its trial. Its existence is threatened by every relevant fact which it cannot

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[15] Sir Henry Jones, *A Faith That Enquires* (1922), p. 49.
[16] *Ibid.*, p. 77.
[17] *Ibid.*, p. 71.
[18] *Ibid.*, pp. 77, 78.

explain . . . Moreover, it is liable at every moment to be supplanted by some simpler, more fundamental or far-reaching hypothesis. An Einstein comes after our Newtons, and at least startles the world. The whole progress of science . . . illustrates this revolutionary kind of advance that comes from the substitution of one hypothesis for another."[19]

The hypothesis, however true, is only a *theory*. As such it is a mere conception that promises to colligate ideas, but in itself it points to no fact, neither is it a reality which a man may experience as a force within or without him.[20] Consequently, if faith as a hypothesis includes no more than a scientific hypothesis, no man will commit his life to its care and guidance. For, as a hypothesis, the religious hypothesis is only intellectual knowledge. And since *all* our knowledge is hypothetical, resting upon conjecture, it hangs mid-air by an "if." But when *experience* is added to the hypothesis, the individual "knows." Experience is *the final court of appeal*. "Arguments have no force; they cannot touch, either to strengthen or weaken, what springs from a man's own 'experience.' "[21]

The proof of the hypothesis thus becomes pragmatic. Religious experience furnishes the data. But since no one experience is proof of its truth, for otherwise all personal experiences would be true, the intellect must deal with the meaning of the experience

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[19] *Ibid.*, p. 63.

[20] "In the next place, a hypothesis, however true, is only a *theory*. It concerns, primarily at least, the intellect only, not 'the heart' or the will or the ends of men. In short, a hypothesis is a mere conception . . . a universal that promises to colligate ideas, but points to no fact and is not a reality which man may experience as a force within or without him. . . ."—*Ibid.*, p. 63.

[21] *Ibid.*, pp. 63, 64-66.

and find "its place amongst facts which are open to the observation of every intelligence." For there are many who will testify that they have had no experience of God's existence; we can neither prove nor disprove God's existence by reason alone; hence faith as a hypothesis only gives us an idea of God that comes "as a possible or probable and convincing explanation of the universe and man's life and destiny."[22] We must take the same attitude towards this hypothesis that we would take towards one of science. When we deal with such as are not adequately verified we do not therefore deny their possibility, so neither should we deny the hypothesis of faith because we have not experienced God.[23]

Therefore, our attitude towards the Universe should be the same that we take when working in our scientific laboratories. The Universe is a great spiritual laboratory in which we test scientific truths and so even "the Church as teacher must learn to represent its beliefs not as dogmas but as truths which it challenges the disbelieving world to put to the test, and to the hardest tests it can find even among the worst intricacies of the pathetic tragedies of human life."[24] "The religious hypothesis, like all others, is never finally proven, it is always and everywhere in the act of being proved. It is the one thing that is being done through creation. It is the experiment—the Grand Perhaps of the Universe."[25] If our faith or hypothesis

[22] *Ibid.*, pp. 65, 176.

[23] "The scientist knows that to fail to trace the law is one thing and to deny its existence is another. 'Not proven is not disproven.'"—*Ibid.*, p. 167.

[24] *Ibid.*, pp. 80-81.

[25] *Ibid.*, p. 79. And elsewhere he says, "The particular events and experiences of individual lives cannot furnish to us the grounds for

works by satisfying our needs and aspirations, if it promotes dignity of human character, consolidates human society, and elevates and secures the life of man for greater peace and mutual helpfulness amongst the nations—"then indeed is the proof of its validity strong; stronger than the proof of any other hypothesis, because wider and deeper."[26]

In concluding Sir Henry Jones's notion of faith we quote his own words to point out that his conclusions "are based from beginning to end, upon an assumption [or hypothesis] which I have made no attempt to justify, and which, if false, deprives our attempt of all value. The assumption is that the moral life has a value which is final, unlimited and absolute. By the moral life I mean the *process* of forming a good character; by good character I mean a way of living which . . . is . . . the fulfillment, at the same time, of the moral law and of the will of God."[27]

[26] *Ibid.*, p. 80.

[27] *Ibid.*, p. 270.

That the notion of faith which we have just set forth in considerable detail is a common one today, will be seen from the array of philosophers who are essentially at one with Sir Henry Jones on the subject under consideration. Dean Inge would have us arrive at the object of our faith through the supreme venture of life. "Faith is a venture; it begins as the resolution to stand or fall by the noblest hypothesis."—Cf. "Can the New Idealism dispense with Mysticism?", *Proceedings of the Aristotelian Society* (1923), p. 180. It is a spiritual experience which persists and deepens under all tests of life. It is primarily a feeling and is based on the world of eternal values which attract us. It is not based on concluding either the truth or the falsity of religious faith. These furnish premises not tests. We approach the facts of life with a preconception, favourable or unfavourable, of the existence and nature of God, which is the result, not so much of external observation as of reflexion upon our own nature and needs. Hence our religious faith or scepticism has the same ultimate use and character as a scientific hypothesis, and its validity must be tested in the same way."—*Ibid*,. p. 164.

2. Faith as a postulate.

J. S. Bixler in his excellent study, *Religion in The Philosophy of William James*, defines postulates as "voluntary assumptions of a risk for a higher end. They take a chance, but they do it courageously and intelligently, whereas mere blind faith is unintelligent and cowardly."[28] Faith as a postulate voluntarily assumes that God exists. It is essentially an attitude that we take towards God and the universe. And though our faith is based on an assumption, our attitude of expectancy, of hopefulness, or of confidence, is buoyed and nourished by the results that are to be obtained from living out the assumption.

Among those who set forth this idea of faith, we find some who hold it to be an attitude that we assume toward God, rather than an attitude founded upon doctrine. The attitude assumed is the product of experience, not of speculation. Even doctrines, which Shailer Mathews calls "patterns," reflect men's experience. Faith of this kind transcends doctrines, it is "more than explanation—it is courage and adventurous living . . . it is faith in a cosmic God who loves and helps and saves." It is the actual living in accord-

[28] *Op. cit.*, p. 86.

authority. Faith "must be a venture of the soul." This notion is also subscribed to by Arthur Balfour who holds that "Divine guidance must be postulated if we are to maintain the three great values—knowledge, love, beauty," as God is a "presupposition of all these beauties." Cf. *Theism and Thought*, Gifford Lectures (1922–1923), pp. 248, 251. Lloyd Morgan, *Emergent Evolution*, Gifford Lecturers, pp. 36, 61, 173; Seth Pringle-Pattison, *Idea of Immortality* (1922), pp. 196-7; and A. K. Rogers, *What is Truth?* (1923), p. 166; are all of the same temper of mind since they base their faith, as a venture, on the hypothesis that God exists; while Professor E. Armitage sums up his notion of faith in words identical with those of Dean Inge, "The act of faith must ever be a venture of the soul."—Cf. *Hibbert Journal*, XIV. (1914–1915), 365.

ance with what Jesus supplies, namely, His teachings, His example, and the evidence He brings of a higher life beyond death.[29]

G. Lowes Dickinson has a similar notion of faith which he terms an attitude of active expectancy. He attributes its power to the imagination rather than to reason. Reason "is critical, not constructive; it may destroy, but it cannot create." Faith is called "an attitude . . . of active expectancy," because it is "the attitude of a man who, while candidly recognizing that he does not know, and faithfully pursuing or awaiting knowledge, and ready to accept it when it comes, yet centers meanwhile his emotional, and therefore his practical life about a possibility which he selects because of its value, its desirability." This attitude of expectancy may be exemplified in the case of a man, who "may indeed, find a religious inspiration in the recorded life and sayings of Christ. But the inspiration would be the same, whether he regarded the Gospels as myth or as fact, and would not depend on the existence of Christ in the past or in the present, but on the conception embodied in His story." Naturally, revelation must be rejected as an "avenue to truth, and therefore as a basis for religion," for if we accept any of these truths it is because we find that they work. "Religion," too, "is an attitude of the imagination and the will, not of the intellect . . . It is possible, it is common to believe in God, without having religion; it is less common, but it is not less possible, to have religion without believing in God."[30]

[29] Shailer Mathews, *The Faith of Modernism* (1924), pp. 103, 119, 121, 171, 167-168.

[30] G. Lowes Dickinson, *Religion: A Criticism and Forecast* (New York, 1905), pp. 7, ix-x, 36, 50, 73, 57.

Our attitude determines what we will believe. For example, we do not know whether there is a future life, yet some temperaments will require and may legitimately desire and hope for it because they need it. These temperaments will consequently require a belief in God. Faith is a necessity for them. In support of this view Dickinson cites leaders of thought who, though more sceptical than their predecessors were, seem also to be more believing. "They question things that an earlier generation never thought of challenging; but they affirm what it would have regarded as superstitious or dreams." Thus—George Meredith rejecting God and immortality demands our worship for what he calls "Earth";[31] George Bernard Shaw repudiates the whole structure of our morals and science, and announces a new religion of "Life-force"; and Nietzche who denied all sense to the words "good" and "true" turned about and propounded a new ethics and a new cosmology. They are at once sceptical and credulous. They deny the old order of things but place a new postulate, and require a new faith for that which they hope and desire, as though it were true. But if this faith is to help men at all "it must bring them into some friendly knowledge with the universe as they now conceive it." Yet these men contribute to and express something of the essence of the new faith "so that it has a significance which is in harmony with our ideals," for example, "in fighting for Good we are assisting something real that is divine; in fighting against Evil we are resisting something

[31] Professor Roy Wood Sellars, in his *Religion Coming of Age* (1928)' has a similar notion when he asks, "Is the Universe Friendly?" pp. 155, 156 ff., and which he answers in the affirmative in chapters xii and xiii under the title "Has Man a Cosmic Companion?"

that is diabolic. That is the kind of mythology which seems likely to appeal to men; one which represents life as a fight . . . having cosmic significance, pointing to an end beyond, but analogous to, our best vision, an end which we are in the process of discovering, as we are in the process of realizing it." "All that men of this temperament really want is the opening of a horizon; and for that it is enough to imagine that what we know as life is not the beginning and end of all experience, and that our efforts have reverberations more remote and issues more sublime than can be apprehended by our direct experience."[32]

There are others again for whom faith as a postulate stresses the attitude of confidence. This faith depends solely upon our own effort. "It is a self-confidence that men need, belief that they can do their part . . . Faith in self, faith that links God and man." However, "It is not faith in God that they [men] need, but faith in themselves." The basis of this faith is Pragmatism, which is the philosophy of the "sensible" American. "Whatever will work in the conduct of life strengthening it, enriching it, giving it a higher trend, must, so far as it goes, have elements of truth. If it were not true it would not work."[33]

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[32] G. Lowes Dickinson, "Knowledge and Faith," *Hibbert Journal*, VI. (1907–1908), 515–519.

L. P. Jacks parallels this idea, though his faith is not to be wholly identified with the above. His notion of faith is a modified form of the will-to-believe. He defines faith as "nothing more than reason grown courageous . . . raised to its highest power, expanded to its widest vision."—*Religious Perplexities* (1922), pp. 64, 65.

[33] David Starr Jordan, *Hibbert Journal*, VI. (1907–1908), 854, 864, 860–861. Faith is "a confidence that the universe of matter and spirit is a reality, that its functions are in wise hands, for the time being our own hands as well as the hand of God, and our part is to help our brother organisms to more abounding life."—*Ibid.*, p. 868.

Finally, there are those, who like F. C. S. Schiller, make the postulate of faith and then test it, observing "how it works," so that "The presuppositions of scientific knowledge and religious faith are the same. So, too, is the mode of verification by experience. The assumptions which work, i.e., which approve themselves by ministering to human interests, purpose and objects of desires are 'verified' and accepted as 'true.' "[34]

To sum up this section: it is evident that the temper of mind of this group of philosophers is one that applies the method of the modern empirical sciences to the realms of the spirit. Science deals with sensible, concrete, individual facts which it can observe. Having noted certain characteristics of a particular group of facts, science formulates a hypothesis in the hope that it will give expression to a new "law" or principle. It must be verified by experiment to make sure that it is the true explanation of the facts in question. In the process of its application, a hypothesis gains a greater probability; if it "survives the first onslaughts of criticism and thereby assumes a more permanent aspect, it is promoted to the rank of a Theory," as such, "it is still a guess that has stood the test of criticism." If it gains in its universal application to facts it may become a "law of science." But even "laws" are liable to revision as new facts become known, because they are only summaries of past experience. Thus the universal application of

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[34] *Studies in Humanism* (1906), p. 362. Dr. Schiller's conception of faith falls more clearly and distinctly under the concept of faith as the wish or the will-to-believe. However, he may be included here inasmuch as he submits faith to a test very much as a man tests an invention to see "how it works."

Newton's Law of Gravitation as embodied in his Laws of Motion in relation to the movements of the heavenly bodies has been questioned recently, and possibly upset, by Einstein's General Theory of Relativity.[35]

Applying the empirical method of science to the existence of God, we cannot prove that God exists. God can neither be felt, nor weighed, nor measured. Neither can His existence be proven by reason. Nor do we know much about our souls. Therefore, the best that we can do in these spiritual matters is: either to make a hypothesis that God exists if that will give us a better explanation of things, be useful, or satisfy our needs; or make the postulate of His existence since He is necessary to us.

In *faith as a hypothesis* we saw how Vaihinger following Kant would have us live "as if" God existed, although all that we really have and know is the *idea* of God. Beibitz goes a step further in asserting that to assume that God exists is the *most reasonable* hypothesis because it is furnished by the intellect and because it "works." According to Professor Hocking we may either accept or reject the hypothesis, but if our faith is to have any value for us, *God must be known by experience.* The supreme example of faith as a hypothesis, and the one which bears the distinctive impress of the "scientific-attitude," is found in Sir Henry Jones who applies the attitude of science to the hypothesis of God's existence as to any other hypothesis of science, making *experience* itself "*the final court of appeal.*" Carrying on the same idea, Dean Inge, Lloyd Morgan, Pringle-Pattison, A. K. Rogers and Professor Armitage, all make

[35] W. F. F. Shearcroft, *Matter, Man and Mind* (1926), pp. 29, 46–55.

faith a venture, based on the hypothesis that God exists.

In *faith as a postulate* we found faith to consist in *an attitude* that we assume toward God and the universe. For Shailer Mathews the attitude is *based on experience* rather than upon a doctrine. G. Lowes Dickinson shifts the emphasis to an attitude *of expectancy and hopefulness* in the practicability of the postulate, pointing out how this concept of faith has been and is the more acceptable to men; while David Starr Jordan conceives faith as an attitude *of confidence*, which is primarily a self-confidence, a belief in the individual, that he can do his part—thus linking himself with God and man. But for all, including F. C. S. Schiller, faith is essentially a postulate, an assumption of the reality of God and things spiritual.

And although faith as a hypothesis and faith as a postulate differ somewhat, in that the former stresses the necessity of our *testing* and *verifying* God's existence, or any other spiritual truth, *by experience*, while the latter stresses our *living out the assumption* that God and spiritual things are real, still they have much in common. Both are non-rational approaches to the existence of God, since they are founded on the assumption that reason cannot prove God's existence. Moreover, they are both the outcome, and an application of the empirical method of science to the problems of things spiritual.

II. FAITH AS THE WISH OR THE WILL-TO-BELIEVE.

In addition to the foregoing notion of faith as a hypothesis or a postulate, we have faith as the wish or the will-to-believe. The religious faith of this

group of philosophers is best exemplified in the philosophy of Professor William James. Its basic assumptions are two: first, that we can not prove the reality of the objects of our beliefs; second, that any knowledge that we do have of these beliefs is obtained by acting upon what seems the more likely hypothesis for us. The individual wills his belief into reality by acting upon what he wishes to believe, being aware that a "risk" must be taken. It reminds us of the philosophy of "As If" of Hans Vaihinger, with this difference, that for Vaihinger we are to act "as if" our beliefs were true though we know full well that they are only fictions which in no way reflect reality, while for James our beliefs take on reality if they "work," but they work in virtue of our willing and action.

In our exposition of the idea of faith as the wish or the will-to-believe we have given considerable attention to the philosophy of James in so far as his philosophy bears upon our problem for the reason that the spirit of James still lives on in the religious philosophy of our day. In his own time others followed the lead of James. Others were giving expression to similar ideas when James formulated his philosophy of religion. Still James may rightly be said to "have found America" and given expression to its philosophy of religious pragmatism. "The instruments of his flight were Renouvier, Darwinism, and the principle of Pierce."[36] His works show a profound devotion to the empirical method of the physical and empirical sciences. But he was keenly aware of the so called modern war between science and religion. His was

[36] Horace M. Kallen, in the Introduction to *The Philosophy of William James* (New York), p. 39.

another effort, like Kant's and Bergson's, to rescue faith from the universalized mechanics of materialism.

James's entire life was a protest against the philosophers of the latter half of the nineteenth century who were unduly influenced by the materialistic scepticism of the scientists of that period. The method of the scientists was altogether too simple. They divided the verities which men accept into those which relate to the knowable and those which relate to the unknowable. What was knowable they appropriated without exception for their science. That which was unknowable they abandoned, without reserve, to religion. Science possessed all that could be known, while the unknowable, of religion, possessed all that is worth knowing. With so equal a partition of the spoils both combatants were to be content.[37] James was not content with such a division. Balfour had already turned his sceptical batteries upon the reputed foundation of the naturalistic creed in the certainties of sense-perception, in his *Defense of Philosophic Doubt*, published in 1879 at the very flood-tide of naturalistic confidence.[38] James went further and asserted that there were not only two worlds, "the visible world" and a "spiritual universe," but that these two worlds are essentially one. The visible world was subordinated to the spiritual—because it is from the spiritual that the visible "draws its chief significance."[39] This was a decided contrast to the crass materialism which had so long been prominent, if not indeed dominant, in modern philosophy. It was an "about face" to those views for

[37] A. J. Balfour, *The Foundations of Belief* (8th ed., 1902).
[38] A. Seth Pringle-Pattison, *The Idea of God* (1920), p. 59.
[39] *The Varieties of Religious Experience* (1928), p. 485.

which the only ultimate realities are matter and physical law.[40]

In becoming the spokesman of Pragmatism, James made no pretensions at giving us a new philosophy. Pragmatism is "nothing essentially new, it harmonizes with many ancient philosophic tendencies" such as nominalism, utilitarianism, positivism, and romanticism.[41] It took over the scientific method of the hypothesis and stressed the part which the will played in making a hypothesis or tentative belief become true. "Its roots went back into Kant's 'practical reason'; in Schopenhauer's exaltation of the will; in Darwin's notion that the fittest (and therefore also the fittest and truest idea) is that which survives; in utilitarianism, which measured all goods in terms of use; in the empirical and inductive methods of English philosophy; and finally in the suggestions of the American scene."[42]

James was influenced by a consideration of moral values. He felt deeply the need of a moral order. The world must be in the hands of a moral God. His

[40] Professor James further reminded philosophers, and scientists as well, that it is no disparagement of science to assert that philosophy is not compelled to follow at its heels (though he himself followed all too closely). Rather is the converse true, and scientific concepts must themselves, in essence, if not in detail, be brought to the judgment bar of philosophy. Cf. J. E. Turner, *An Examination of William James's Philosophy* (Oxford, 1919), pp. 67, 68. Also, *The Varieties of Religious Experience*, pp. 498–501.

[41] "It agrees with nominalism for instance, in always appealing to particulars; with utilitarianism in emphasizing practical aspects; with positivism in its disdain for verbal solutions, useless questions and metaphysical abstractions." But all are agreed in this that they "are anti-intellectualistic tendencies," while pragmatism is furthermore fully armed and militant "against Rationalism as a pretension and method."—William James, *Pragmatism*, pp. 53, 54.

[42] Will Durant, *The Story of Philosophy* (1926), p. 564.

contemporaries asserted that we do not discover Him in the universe, nor can we deduce Him from the universe, hence there was only one course left to man—to assume that God exists and live our lives accordingly. "If the assumption works, if our faith vindicates itself in experience, we have the strongest kind of proof, the only possible proof of God."[43] A man's beliefs, therefore, are true and possess reality *because of his faith.* All depends upon the tenacity of one's will or wish-to-believe. Religious faith, in the mind of James, with or without mystical experiences, is invariably the inner resolve of the individual, his consecration to ideal realities, his unalterable determination in favour of the divine.[44]

The vindication of the right to extend belief beyond definite evidence is clearly set forth in "The Will to Believe" which "has become a classical document for this tendency in modern thought."[45] The essay is the terminal point of a line of voluntarists whose direction

[43] A. C. McGiffert, *The Rise of Modern Religious Ideas* (1921), pp. 136, 137.

[44] Th. Flournoy, *The Philosophy of William James* (New York, 1907), p. 188.

[45] A. K. Rogers, *English and American Philosophy since 1800* (New York, 1922), p. 371.

Note: In a course of lectures on pragmatism delivered at Columbia University during February, 1907, James publicly repudiated the term "The Will to Believe" as a title for his collection of essays published under that title in 1898. He suggested the title "The Right to Believe" as more representative of his teaching. However, as will be shown, the "right to believe" in James's terminology means the right to choose a belief or to will to believe. The title "The Right to Believe" would only replace the title "The Will to Believe" by including it.

In the appendix to *Some Problems of Philosophy* published after the death of James, we find an essay giving a revision of the will-to-believe under the title, "Faith and the Right to Believe." It is substantially the same as his earlier essay, given in a more condensed form.—Cf. *op. cit.*, pp. 221–230.

is indicated by the names of Kant, Fichte, Lotze, Sigwart, Paulsen, Jevons and Balfour.[46] In it we have the first clear-cut expression of the independence and supremacy of the will in matters of belief and faith. For in distinction to his predecessors who gave supremacy to the will, with the consent of reason, James came out explicitly for belief founded on "sheer volition." His forbears had reversed the traditional relationship between reason and will, giving supremacy to the latter, whereas he made the will the all-important factor in determining man's outlook on life and the world about him.[47]

1. James's notion of religion.

What was James's idea of religion? And what was for him the object of religious faith? The answer to the first question is given in his *Varieties of Religious Experience*, where, after deprecating any attempt at a precise definition of religion, he goes on to say, "Religion, therefore, as I now ask you arbitrarily to take it, shall mean for us *the feelings, acts, and experiences of individual men in their solitude, so far as they apprehend themselves to stand in relation to whatever they may consider divine.*" This "*relation may be either moral, physical or ritual.*" "The word 'divine' as employed" by him "shall mean for us not

[46] E. Stettheimer, Ph.D., *The Will to Believe as a basis for the defence of Religious Faith* (New York, 1907), p. 1.

[47] "The will to believe! To have recognized this element in every philosophy and to have proclaimed its legitimacy against all who disputed or deprecated it is, in my opinion, the greatest service which James has done. It is also one of the most inspired observations that have gone into the structure of pragmatism."—Th. Flournoy, *The Philosophy of William James*, p. 136.

Also cf. A. C. McGiffert, *op. cit.*, p. 136; A. K. Rogers, *op. cit.*, p. 371.

merely the primal and enveloping and real, for that meaning if taken without restriction might well prove too broad. The divine shall mean for us only a primal reality as the individual feels impelled to respond to solemnly and gravely, and neither by a curse or jest."[48]

In response to a letter from E. L. Godkin who asked James what he meant by religion in his volume *The Will to Believe*, he replied: "I mean by religion for a man *anything* that for *him* is a live hypothesis in that line, although it may be a dead one for anyone else."[49] For James the supreme hypothesis was the existence of a God Who would put meaning into the world and give us a foundation for moral values. However, the existence of any God, or of God as traditionally understood, need not be a hypothesis for another unless that person has need of same.

One note is found common to all religions. All meet in a certain uniform deliverance. "It consists of two parts:—

1. An uneasiness; and
2. Its solution.

1. The uneasiness, reduced to its simplest terms, is a sense that there is *something wrong about us* as we naturally stand.

2. The solution is a sense that *we are saved from the wrongness* by making proper connection with the higher powers."[50]

From the foregoing it is apparent that for James, religion consists in a relationship between ourselves who feel that "there is something wrong about us

[48] *Op. cit.*, pp. 31, 38.
[49] *The Letters of William James*, II, 64, 65.
[50] *The Varieties of Religious Experience*, p. 508.

as we naturally stand," and "the higher powers" by whom "we are saved" if we succeed in making the proper connections. And the "higher powers," "this higher part of the universe," which James calls "God," is the object of man's religious faith.

The passage cited expresses a conviction familiar to all ages. It is the world-old gospel coming from the lips of a modern philosopher. It bears all the old features, as old as human nature itself—"there is something wrong about us as we naturally stand." What is this but the old dogma of "original sin" and the insufficiency of the "natural man"? It is far removed from the modern religiosity which never recognizes "wrongness" but merely the imperfection of man, an imperfection "which seeks not salvation but merely a fuller evolution and a better development."[51] But let us not lose sight of the fact that here we have also a clear statement of the will-to-believe. "We are saved" by our own efforts, "by making proper connections with the higher powers." We must get in touch with the "higher powers," with "this higher part of the universe" which he calls "God." For "we and God have business with each other; and in opening ourselves to his influence our deepest destiny is fulfilled."[52] And if "union" with him (i.e., "the higher universe") is "our true end,"[53] then obviously, the method by which this union comes about is of supreme importance, especially since we open ourselves to his influence and may even "actually help God . . . to be more effectively faithful to his own greater tasks" by "faithfulness" to our "poor

[51] J. E. Turner, *op. cit.*, p. 69.
[52] *The Varieties of Religious Experience*, pp. 516, 517.
[53] *Ibid.*, p. 485.

own over-beliefs."[54] But what was James's justification for the will-to-believe?

2. Justification of the will-to-believe.

If religion means "*anything*" which is "a live hypothesis" for the individual, what is the justification for a faith that will necessarily vary from individual to individual—for a faith that may or may not have God for its object? The answer is found in "The Will to Believe" which is professedly "in justification *of* faith, a defense of our right to adopt a believing attitude in religious matters, in spite of the fact that our merely logical intellect may not have been coerced."[55] This essay, which is developed

[54] *Ibid.*, 518, 519.

At one time James sets forth a finite god, at another time God is the absolute. Throughout James's works one continually notes his lack of consistency, attributable to two facts. First, his sympathies were so wide, and his interests and affinities were so varied, that each successive development in contemporary thought was incorporated by him regardless of its agreement with the rest of his system; thus he first embraced pragmatism, then Bergsonism, and finally his own empiricism. The second fact serves to explain the first. It is that he found himself continually in the midst of a personal conflict of the claims of his "sick soul" which demanded an absolute God who governs all things, who has power to save us—while his state of "healthy-mindedness," when he was filled with vim, vigour and vitality, was better satisfied with a finite "pluralistic" God who is conceived more as a co-worker than a sovereign. This conflict is depicted in *Pragmatism* and in *A Pluralistic Universe*. The final decision is definitely in favor of a pluralistic, empirical view of life and the universe which his state of "healthy-mindedness" desired, and which was created or made true by the empirical "will-to-believe." Cf. J. S. Bixler, *Religion in the Philosophy of William James* (Boston, 1926).

[55] *Op. cit.*, pp. 1, 2.

The Will to Believe emphasizes the *active* side of James's religious theory, setting forth what can be accomplished by the aggressively striving individual who asserts his will to survive, achieve, and believe. Man's insufficiency in matters religious is given in a complementary work, *The Varieties of Religious Experience.*

in other parts of the same work, and is referred to over and over again, is in behalf of "the lawfulness of voluntarily adopted faith" when we are faced with a possible and desirable hypothesis, the reality of which cannot be decided on intellectual grounds.

Thus we are to "give the name of *hypothesis* to anything that may be proposed to our belief; and just as the electricians speak of live and dead wires, let us speak of any hypothesis as either *live* or *dead.* A live hypothesis is one which appeals as a real possibility to him to whom it is proposed. If I ask you to believe in the Mahdi, the notion makes no electric connection with your nature—it refuses to scintillate with any credibility at all. As an hypothesis it is completely dead. To any Arab, however (even if he be not one of Mahdi's followers), the hypothesis is among the mind's possibilities: it is alive. This shows that deadness and liveness in an hypothesis are not intrinsic properties, but relations to the individual thinker. They are measured by his willingness to act. The maximum of liveness in an hypothesis means willingness to act irrevocably. Practically, that means belief; but there is some believing tendency wherever there is willingness to act at all."[56]

[56] *Ibid.*, pp. 2, 3. "Next, let us call the decision between two hypotheses an *option.* Options may be of several kinds. They may be: 1. *living* or *dead;* 2. *forced* or *avoidable:* 3. *momentous* or *trivial*; and for our purposes we may call an option a *genuine* option when it is of the forced, living, and momentous kind.

1. "A living option is one in which both hypotheses are live ones," . . . e.g., "if I say 'Be an agnostic or be a Xtian,' . . . trained as you are, each hypothesis makes some appeal, however small, to your belief."

2. A genuine forced option is unavoidable, e.g., "Either accept this truth or go without it." . . . "Every dilemma based on a complete logical disjunction, with no possibility of not choosing, is an option of this kind."

3. A momentous option is one where "He who refuses to embrace a

True, there are many facts whose objective evidence is so convincing that we are absolutely impotent to disbelieve them, for example we cannot believe "that Abraham Lincoln's existence is a myth" or "that the sum of two one-dollar bills in my pocket must be a hundred dollars." Still there are other truths, the reality of which is not so clearly patent, yet these truths may be "live hypotheses" for us. Of this nature is the celebrated passage in *The Thoughts of Pascal* known as Pascal's wager. "Translated freely his words are these: You must believe or not believe that God is—which will you do? Your human reason cannot say. A game is going on between you and the nature of things which at the day of judgment will bring out either heads or tails. Weigh what your gains and your losses would be if you should stake all you have on heads, or God's existence; if you win in such a case, you gain eternal beatitude; if you lose, you lose nothing at all. If there were an infinity of chances, and only one for God in this wager, still you ought to stake your all on God; for though you surely risk a finite loss by this procedure, any finite loss is reasonable, even a certain one is reasonable, if there is but the possibility of infinite gain."[57]

[57] *Ibid.*, pp. 5, 6. Note: For the benefit of the reader we wish to point out the difference between Pascal's use of the wager and that of James who appeals to it so frequently in his writings. The latter had recourse to the argument because it stated with force what was for him a "live

unique opportunity loses the prize as surely as if he tried and failed." . . . whereas, "the option is trivial when the opportunity is not unique, when the stake is insignificant, or when the decision is reversable if it later proved unwise. Such trivial options abound in the scientific life. A chemist finds an hypothesis live enough to spend a year in its verification: he believes in it to that extent. But if his experiments prove inconclusive either way, he is quit for his loss of time, no vital harm being done."—*Ibid.*, pp. 3, 4.

Pascal's wager appealed strongly to James. He refers to it again and again because it formulated for him a non-intellectual approach to the existence of God, which for him could not be proven by reason, and consequently our attitude to this possible truth and explanation of the universe constituted what was not only a "live hypothesis" but the supreme hypothesis. He had taken it for granted that Kant had shown the futility of valid intellectual arguments for the existence of God as well as certain other spiritual realities. These he wished to save for himself and others by justifying the will-to-believe at a "risk." But the risk must be taken because "no concrete tests of what is really true have ever been agreed upon . . . To claim that certain truths now possess it, is simply to say that when you think them true and they *are* true, then their evidence is objective,

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hypothesis." Pascal in employing it knew full well, that though the wager was no proof for the existence of God, or the validity of Christianity, it was of such a nature as to evoke a serious study of the claims made by Christianity since tremendous issues are at stake. Hence, when James goes on to say, "Surely Pascal's own belief in masses and holy water had far other springs" than stated in his famous wager, so he had. James would take the argument and leave out "masses and holy water"; whereas Pascal, or any Catholic, upon finding rational grounds for belief in God, accepts "masses and holy water" as a consequent of his belief in God, and in the teachings of the Catholic Church, as the Church founded by Christ.

Thus the famous phrase of Pascal, "The heart has its reasons, which reason does not know," is quoted a thousand and one times, as though he had said nothing more about either the heart or reason. For example, immediately after the passage cited, he continues, "I say that the heart naturally loves the Universal Being, and also itself naturally. . . ." But we do not love that which we do not know. Again he says, "We must know where to doubt, where to feel certain, where to submit. He who does not do so, understands not the force of reason."—Pascal, *The Thoughts of Blaise Pascal* (J. M. Dent & Co., London), pp. 103, 108, 109, 110.

otherwise it is not. But practically one's conviction that the evidence one goes by is of the real objective brand, is only one more subjective opinion added to the lot."[58] We cannot be sure of truth. What we take for truth is largely subjective. Truth for man with his limited intellectual potentialities is after all something relative. Nevertheless we continually strive for truth. We may constantly seek it at our own risk, but we never do attain it.[59]

The greatest factor in man's search for truth is his "passional nature." It "not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds; for to say, under such circumstances, 'Do not decide, but leave the question open,' is itself a passional decision—just like deciding yes or no—and is attended with the same risk of losing the truth."[60] In scientific questions we can withhold making a decision till objective evidence has come because here the option between losing truth and gaining it is not momentous.[61] However, there are some forced options in our moral questions. These cannot wait for sensible proof. "The question of having moral beliefs at all or not having them is decided by our will . . . If your heart does not *want* a world of moral reality, your head will assuredly never make you believe in one."[62]

"There are, then, cases where a fact cannot come at all unless a preliminary faith exists in its coming."[63]

[58] *Ibid.*, pp. 15, 16.
[59] *Ibid.*, p. 17.
[60] *Ibid.*, p. 11.
[61] *Ibid.*, pp. 19, 20.
[62] *Ibid.*, pp. 22, 23.
[63] *Ibid.*, p. 25.

To wait until we are certain that the truth of our religious hypothesis is in our grasp is to put a stopper on our heart, instincts and courage. It is to wait until doomsday which we cannot do when we are faced with a living option or hypothesis. "Belief is measured by action . . . The whole defence of religious faith hinges upon action."[64]

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[64] *Ibid.*, pp. 29, 30. Also footnote by Professor James.

"Now let us consider what the logical elements of this situation are in case the religious hypothesis in both its branches be really true. (Of course, we must admit the possibility at the outset. If we are to discuss the question, it must involve a living option. . . .) So proceeding, we see, first, that religion offers itself as a *momentous* option. We are supposed to gain, even now, by our belief, and to lose by our non-belief, a certain vital good. Secondly, religion is a *forced* option, so far as that good goes. We cannot escape the issue by remaining sceptical and waiting for more light, because, although we do avoid error in that way *if religion be untrue*, we lose the good, *if it be true*, just as certainly as if we positively chose to disbelieve. . . . Scepticism, then, is not avoidance of option; it is option of a certain particular kind of risk. *Better risk loss of truth than chance error* . . . that is your faith-vetoer's exact position."—*Ibid.*, pp. 25, 26.

"Dupery for dupery, what proof is there that dupery through hope is so much worse than dupery through fear? I, for one, can see no proof; and I simply refuse obedience to the scientist's command to imitate his kind of option, in a case where my own stake is important enough to give me the right to choose my own form of risk. If religion be true and the evidence for it be still insufficient, I do not wish, by putting your extinguisher upon my nature (which feels to me as if it had after all some business in this matter), to forfeit my sole chance in life of getting upon the winning side, . . . that chance depending, of course, on my willingness to run the risk of acting as if my passional need of taking the world religiously might be prophetic and right."—*Ibid.*, p. 27.

In the foregoing we see the force which Pascal's wager had for James as he has merely restated it in his own words. Its force is entirely lost if one prefers what James called the "naturalistic hypothesis" which has no need of God. "If the action required or inspired by the religious hypothesis is in no way different from that indicated by the materialistic hypothesis, then religious faith is a pure superfluity. . . . I myself believe, of course, that the religious hypothesis gives to the world an

Every man has the "right to believe," but he must make his own decision as to whether he is going to believe, disbelieve, or doubt, what is for him the religious hypothesis. The outcome will depend upon the action of his will, upon the tenacity of his wish or will-to-believe. "Our faith beforehand in an uncertified result *is the only thing that makes the result come true.* Suppose, for instance, that you are climbing a mountain, and have worked yourself into a position from which the only escape is by a terrible leap. Have faith that you can successfully make it, and your feet are nerved to its accomplishment. But mistrust yourself, and think of all the sweet things that you have heard the scientists say of *maybes*, and you will hesitate so long that, at last, all unstrung and trembling, and launching yourself in a moment of despair, you roll in the abyss. In such a case (and it belongs to an enormous class), the part of wisdom as well as of courage is to *believe what is in the line of your needs*, for only by such belief is the need fulfilled. Refuse to believe, and you shall indeed be right, for you shall irretrievably perish. But believe, and again you shall be right, for you shall save yourself. You make one or the other of two possible universes true by your trust or mistrust,—both universes having been only *maybes*, in this particular, before you contributed your act."[65]

Here, as elsewhere, James's scientific training and interests show their influence in his philosophy and religion. He applied the practical working faith

[65] *Ibid.*, p. 59.

expression which specifically determines our reactions, and makes them in a large part unlike what they might be on a purely naturalistic scheme of belief."—*Ibid.*, footnote pp. 29, 30.

of science to the process of living from day to day. The world, God, and our moral realities are what our heart (will) wants them to be. We, ourselves, may help to create the truths of religion by believing them; and since religious belief is measured by action, we must come to religious activity. It is true there is a risk, but then there is a risk whichever way we may turn. The necessity and justification of this faith as a mental attitude, which involves a risk, is continually affirmed by the scientist. He takes the risk and tries out his hypothesis in the case of a single theory or law, whereas in the matter of a religious truth, the belief or religious hypothesis is postulated and accepted in the interests of our volitional nature. To act upon unverified scientific hypotheses involves a risk because the results of the test alone can show whether the faith in the hypothesis was justified. But in the instance of religious faith, the risk is one in which, as in Pascal's famous wager, nothing can be lost and everything may be gained.

Furthermore, James's faith pertaining, as it does, to the practical side of our nature, is both the root and the crown of all our knowledge of the world because we make both "truth" and "reality" by our actions. " 'Truth' and 'reality' are valid, not because they are 'independent' of us, but because we have 'made' them."[66] In other words the 'truth' and the 'reality' of our beliefs are the outcome of the pragmatic method, an "*attitude of looking away from first things, principles, 'categories', supposed necessities, and of looking towards last things, finite, consequences, facts.*"[67] Truth does not consist in the conformity between the

[66] F. C. S. Schiller, *Studies in Humanism*, p. 462.

[67] William James, *Pragmatism*, pp. 54, 55.

knowing mind and reality. It is relative, not absolute; it is mutable, and not eternal. "Truth happens to an idea. It *becomes* true, is *made* true by events. Its verity is in fact an event, a process; the process namely of its verifying itself, its veri-*fication*. Its validity is the process of its valid-*ation*."[68]

Applying the pragmatic method to the truths of religion, James goes on to show what to his knowledge "has never been clearly pointed out, that belief (as measured by action) not only does and must continually outstrip scientific evidence, but that there is a certain class of truths of whose reality belief is a factor as well as a confessor; and that as regards this class of truths faith is not only licit and pertinent, but essential and indispensable. The truths cannot become true till our faith has made them so." Going on to illustrate this view by the example of climbing the Alps, an individual is suddenly faced with the situation where the only possible escape is by a terrible leap. Without similar experience he has no evidence of his ability to make the other side, but hope and confidence make him sure that he will not miss his aim. "In this case . . . the part of wisdom is to believe what one desires . . . *There are then cases where faith creates its own verification.* Believe, and you shall be right, for you shall save yourself; doubt, and you shall again be right, for you shall perish. The only difference is that to believe is greatly to your advantage."[69]

Religion is founded on a pragmatic need, on the moral grounds of God's usefulness to us. Pluralism ("whether Deity be one or many, pluralism and

[68] *Ibid.*, p. 201.
[69] *The Will to Believe*, pp. 96, 97.

pragmatism as well as ordinary common sense require that it be finite")[70] was a description of reality. Empiricism, via the will-to-believe, was the method by which we could best deal with the great unknown, "and when empiricism is supported by the use of the pragmatic test the combination is formidable."[71] We are to taste and see that God is good—if there is a God. *We "taste"—we "will"*—the voluntaristic element is stressed; reason is of little avail. We are to leap beyond human barriers to a pluralistic universe of higher powers which cannot be known by reason. "Faith" becomes "belief in something concerning which doubt is still theoretically possible; . . . the test . . . is willingness to act . . . in a cause the prosperous issue of which is not certified to us in advance."[72]

The steps that make for such a faith are given in what James alludes to as a "faith ladder" which is found in *A Pluralistic Universe*. They are stated more summarily in his last will and testament "Faith and the Right to Believe" which was incorporated, at the express wish of the author, in *Some Problems of Philosophy*. The series of steps, not one of them logical, by which beliefs enter the mind are as follows:

"A conception of the world arises in you somehow, no matter how. Is it true or not? you ask.

"It *might* be true somewhere, you say, for it is not self-contradictory.

"It *may* be true, you continue, even here and now.

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[70] J. S. Bixler, *Religion in the Philosophy of William James*, p. 138.

[71] *Ibid.*, p. 216.

[72] "Faith means belief in something concerning which doubt is still theoretically possible; and as the test of belief is willingness to act, one may say that faith is the readiness to act in a cause the prosperous issue of which is not certified to us in advance."—*The Will to Believe*, p. 90.

"It is *fit* to be true, it would be *well if it were true*, it *ought* to be true.

"It *must* be true, something persuasive in you whispers next; and then—as a final result—

"It shall be *held for true*, you decide; it *shall be* as if true, for *you*.

"And your acting thus may in certain special cases be a means of making it securely true in the end."[73]

To sum up: the truths or Truth, with which our faith is concerned, is in the making here and now by the decisions that we make. Truth grows up within our own finite experiences. It is a process, and it is being made by our actions. It is not dependent upon previous relationships, but it is the success of our own individual decisions and activities. This is in accord with James's concept of God as a finite Deity or deities, in that the Absolute is incomplete because it has not yet become the Ultimate or the Infinite. "Faith means belief in something concerning which doubt is still theoretically possible."[74] We must will our belief. This belief has its ultimate

[73] *A Pluralistic Universe*, pp. 328, 329.

"The following steps may be called the 'faith-ladder';

1. There is nothing absurd in a certain view of the world being true, nothing self-contradictory;
2. It *might* have been true under certain conditions;
3. It *may* be true, even now;
4. It is *fit* to be true;
5. It *ought* to be true;
6. It *must* be true;
7. It *shall* be true, at any rate for me.

Obviously this is no intellectual chain of inferences, like the *sorites* of the logic-books. Yet it is a slope of good-will on which in the larger questions of life men habitually live."—*Some Problems of Philosophy* (1911), p. 224.

[74] *The Will to Believe*, p. 90.

test in experience—nay more—we give it its "veri-*fication*" and "valid-*ation*."

3. Other notions of the wish or the will-to-believe.

Inasmuch as belief in God "involves taking a risk," since His existence cannot be proven or held with certitude, Dr. L. P. Jacks, the able editor of *The Hibbert Journal*, freely admits the charge of the "irrationality" of such a belief.[75] "Faith is neither a substitute for reason nor an addition to it." It "is nothing else than reason grown courageous."[76] To rest content in disbelief is the "coward's" way out, to take the risk is the way of the "hero."[77] But there is a difference between the faith of Professor

[75] *Religious Perplexities* (Hibbert Lectures, 1922), p. 16.

[76] *Ibid.*, p. 21.

[77] *Ibid.*, pp. 18, 19. Note: Dr. Jacks's reference to the "hero" and the "coward" that is within each of us, reminds one very much of what James calls the "sick soul" and the "state of healthy-mindedness."

"There is a coward and a hero in the breast of every man. Each of the pair has a 'logic' of his own adapted to his particular purpose and aim—which is safety for the coward and victory for the hero. The two are perpetually at variance, the reason of the one being the unreason of the other, the truth of the one being the falsehood of the other. . . . Anyone who watches himself narrowly may observe the strife going on, and going on in just this form,—as an argument between the coward within him, who is out for safety, and the hero within him, who is out for victory. They have little common ground and can barely understand each other's speech.

". . . Religion is a power which develops the hero in the man at the expense of the coward in the man. As the change proceeds there comes a moment when the cowardly method of reason, with its eye on safety, ceases to dominate the soul. At the same moment the heroic element awakes and looks with longing towards the dangerous mountain-tops. Thenceforth the man's reason becomes the organ of the new spirit that is in him, no longer fettered to the self-centre, but mounting up with wings as an eagle. His powers as a reasoner are enriched, his survey of the facts more comprehensive, his insight into their significance more penetrating."—*Ibid.*, pp. 18–20.

James and that of Dr. Jacks. The latter insists most emphatically on a "will-to-*dis*believe" as well as a will-to-believe. The "will-to-disbelieve" is a weapon of defence, a protection against credulity, which is most useful when engaged in exposing the "shams, fraud and cant practised under the name of religion."[78] A true belief is the result of employing both the "will-to-disbelieve" and the will-to-believe. *God "is not a product, but the author and living principle of the will-to-believe."*[79] "The only final mode of ascertaining whether or no such a God exists is by experiment, standing or falling by the issue, and resorting to the methods of argumentation only to confirm or elucidate the results obtained. The experiment first, the argumentation second."[80]

The essential differences between the faith of James and that of Dr. Jacks are two: first, James's will-to-believe creates the object of its belief and gives it reality, while Dr. Jacks's "hero" employing both the "will-to-disbelieve" and the will-to-believe would rather "create the proof" for his belief by "his own valour than have it for nothing from the outset";[81] secondly, faith for James brings with it the "satisfaction" of a solution to the feeling "that there is *something wrong about us* as we naturally stand,"[82] while for Jacks "it will give us power rather than satisfaction; courage to face danger rather than safeguards against it; inspiration rather than explanation. Whatever satisfaction it brings will come

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[78] *Ibid.*, pp. 33, 34. (Italics ours)
[79] *Ibid.*, p. 35. (Italics ours)
[80] *Ibid.*, pp. 66, 67.
[81] *Ibid.*, p. 37.
[82] *The Varieties of Religious Experience*, p. 508.

through power; whatever safeguards, through courage; whatever explanation, through inspiration."[83]

And in so far as Professor F. C. S. Schiller thinks that Dr. Jacks's philosophy of religion is based on the right interpretation of the will-to-believe,[84] he is parting ways with the will-to-believe of Professor James. In his *Problems of Belief* Schiller defines his own idea of faith as a "spiritual attitude of welcome which we assume towards what we take to be a 'truth.' "[85] In this work one gains the impression that beliefs are essentially volitional by nature. We can believe "what we take to be a 'truth' " by sheer force of will. We make the truths of our beliefs by willing—that is by habitually acting upon what we hold. "If we think at all, either the knowledge will render impossible the practical belief, or a conviction will arise that a belief we constantly act on, which permeates our whole being and never fails us, is true."[86] And commenting upon James's *Will to Believe* he interprets and confirms the same in saying that the essential condition of the will-to-believe is that it is " 'at your risk,' which leaves ample scope for the testing of the assumed belief by experience of its practical results."[87]

This anti-intellectual, voluntaristic approach to the truths of religion has a wide acceptance today, both in theory and practise, though it is more commonly expressed as a right of man without attempting to give it any justification. Its acceptance is taken as a matter of course because of its coincidence

[83] *Religious Perplexities*, pp. 95, 96.
[84] *Hibbert Journal*, XXI (1922–1923), 610–613.
[85] *Op. cit.*, p. 14.
[86] F. C. S. Schiller, *Axioms as Postulates*, p. 88.
[87] *Ibid.*, p. 91.

with the pragmatic philosophy so prevalent in our day, though it is a logical outcome of the Protestant Revolt which made every man his own final court of appeal in what he wishes to accept in matters of religious belief. Its philosophical justification roots itself in the limits placed on reason by Kant and in the latter's autonomy of the Practical Reason, which is but another way of making our beliefs a consequent of our needs. Beliefs are "useful."

Writing in this strain, Albert Gehring gives expression to what would be readily endorsed by the present-day Modernist creed. "Among the opinions we hold, but few are the result of methodical demonstration. Even when reasoning is involved, it is usually not of primary importance. Our conclusion shines before us; *our will drives us toward it as the hidden propeller;* and *reason* merely *adds the specious strokes of the oar, which seemingly impell us onward* . . . our desires have accommodating perceptions, ready to sift out the arguments that are agreeable and marvellously impervious to the others . . . Of syllogistic clearness and symmetry there is little trace . . . Of this nature are the arguments that nourish my belief in a greater consciousness than human . . . and in immortality. My *faith* in these matters was *semi-emotional in origin* and as such it would likely persist, even without the support of a logical foundation."[88]

The foregoing survey of the will-to-believe brings into relief the opinion so prevalent today, that "in matters of the highest importance, . . . complete uniformity of belief is neither possible nor desirable. The realities with which faith is concerned—God, the self, other persons—are living, acting, changing

[88] *Hibbert Journal*, VIII (1909–1910), 340, 341. (Italics ours)

from day to day, from moment to moment. This ever-changing activity is itself a part of the reality we wish to define, an essential feature of the unity we apprehend by faith."[89] Religion becomes for man "*anything* that for *him* is a live hypothesis in that line, although it may be a dead one for any one else."[90] Whether a man believes, disbelieves, or doubts his hypothesis of the universe, doing so on principle and methodically, "he runs a risk of one sort or the other from his own point of view." Then why not admit the "risk"? Why not settle down on that basis and respect each other's choice of risk to run? "Since our willing natures are active" in our beliefs, each man choosing that which he needs, "why not face squarely the fact without humbug and get the benefits of the admission?"[91]

We are all brought face to face with momentous issues. We feel the need of God and ask "Does God exist?" We ask ourselves the question "Is life worth living?" We must come to a decision for or against the hypothesis, whatever it may be. An act of the

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[89] William Adams Brown, *The Life of Prayer in a World of Science* (1927), p. 119.

[90] *The Letters of William James*, II, 161–162. The letter continues—"And what I try to show is that whether the man believes, disbelieves or doubts his hypothesis, the moment he does either, on principle and, methodically, he runs a risk of one sort or the other from his own point of view. There is no escaping the risk; why not admit that one's function is to run it? By settling down on that basis, and respecting each other's choice of risk to run, it seems to me that we should be in a clearer-headed condition than we now are in, postulating as most all of us do a rational certitude which doesn't exist and disowning the semi-voluntary mental action by which we continue in our own severally characteristic attitudes of belief. Since our willing natures are active here, why not face squarely the fact without humbug and get the benefits of the admission?"

[91] *Ibid.*

will is called for. Do we want a God? If we will to believe, God may be made a reality for us. Do we want to make life more worth living? If we so will, we may make life worth living because we can make it morally what we choose. "Believe that life *is* worth living, and your belief will help to create the fact."[92] Believe, but "*believe what is in the line of your needs*, for only by such belief is the need fulfilled."[93]

[92] *The Will to Believe*, pp. 61, 62.
[93] *Ibid.*, p. 59.

PART II

CRITICAL APPRECIATION OF CONTEMPORORY NOTIONS OF FAITH

CHAPTER II

EVALUATION OF FAITH AS A HYPOTHESIS OR A POSTULATE

We now arrive at a point where we must make a critical appreciation of the modern notions of faith. In this chapter we shall confine ourselves to a critical study of the idea of faith as a hypothesis. But before going on to consider the validity of faith as a hypothesis, as an approach to the reality of the objects of our religious beliefs, it will be necessary to consider the reasons why hypotheses are not only invaluable to, but even necessary in, the empirical sciences.

I. REASONS WHY THERE ARE HYPOTHESES IN SCIENCE.

Briefly reviewing the history of hypotheses in science, we see that Newton, by discovering a *mechanism* in the movements of the heavenly bodies, made this theory a plausible explanation of the universe—apart from living beings. Then, Darwin, by his theory of Natural Selection, seemed to hit upon a mechanism that would explain the origin of living beings as well. All questions for a time were reducible to problems of molecular physics. And, when all seemed quite satisfactory to Science, new discoveries were made, especially in the field of physics, which compelled Science to make a readjustment of its theories and its outlook on the universe in consequence

of the rejection of the old conceptions of Matter, Force and Causation. The atom has become a world in itself, and until it has been surveyed and charted, many new theories will have to be called into play. For the atom, which was once supposed to give an attractive explanation to the clear-cut simplicity of Mechanism, is now regarded by Professor Whitehead and others as an organism rather than a unit of mechanism.[1]

Hence, each hypothesis has its vogue. Yet, hypotheses are necessary to science. The inadequate theories must give way to that which is more in accord with the newest discoveries. And since hypotheses are applied to God, and since one form of modern faith is that of a hypothesis that God exists—we may well ask, "Why are there hypotheses in science?" St. Thomas gives us two reasons which account for their necessity in the empirical sciences:

1. Because of the inability of the human mind to attach a judgment about a group of facts to a first principle;

2. Because of the mutability and a kind of numerical infinity that exists in material things.[2]

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[1] A. N. Whitehead, *Science and the Modern World* (1926), p. 145. Also cf. B. H. Streeter, *Reality* (1927), pp. 1–22.

[2] As to the first reason, "Omnis scientia habetur per aliqua principia per se nota, et per consequens visa."—2–2, q. 1, art. 5 c. When the knowledge had is not immediately attached to first principles, it is either of the nature of an opinion, or of faith. "Assentit intellectus alicui dupliciter: *uno modo*, quia ad hoc movetur ab ipso objecto, quod est vel per seipsum cognitum (sicut patet in principiis primis, quorum est intellectus), vel per aliud cognitum; sicut patet de conclusionibus, quarum est *scientia*: *alio modo* intellectus assentit alicui, non quia sufficienter moveatur ab objecto proprio, sed per quamdam electionem. . . . Et si quidem hoc sit cum dubitatione, et formidine alterius partis, erit *opinio*; si autem cum certitudine absque tali formidine, erit *fides*:

Before attempting to answer the question which we have just proposed, we first wish to explain why we use St. Thomas Aquinas in this critical appreciation of the modern notions of faith. We appeal to his philosophy because it gives us a solution to modern problems; it has stood the test of centuries; its terms have always had the same meaning; and finally, it is the philosophy of *common sense*. By *common sense* we mean first of all "'good sense,' i.e. the plain view and certitude of the plain man-in-the-street," and secondly, "we also mean 'common consent.'"[3] With these two notions in mind, philosophy has been defined by Father Vincent McNabb, "as organized and supreme common sense."[4] The philosophy of Aquinas is of this kind. It takes almost all the ultimate principles of thought and action accepted by the average man or woman,—or the man-in-the-street. Among such principles are enumerated, the existence

[3] Vincent McNabb, *The Catholic Church and Philosophy* (1927), p. 3.
[4] *Ibid.*, p. 3.

. . . *unde manifestum est, quod nec fides, nec opinio potest esse de ipsis visis, aut secundum sensum, aut secundum intellectum.*"—2-2, q. 1, art. 4 c.

As to the second reason, "Illa scientia, quæ non est de subjecto, est certior illa quæ est de subjecto. Et accipitur hic *subjectum* pro materia sensibili. . . ." The reason for the greater certitude, "quia incertitudo causatur propter transmutabilitatem materiæ sensibilis; unde quanto magis acceditur ad eam, tanto scientia est minus certa."—*Post. Analy.* lib. 1, lect. 41 (Leonine ed.).

If a universal and necessary conclusion is to be drawn from singular instances, and that is what is attempted in a hypothesis of the physical sciences, the enumeration must be complete. "Patet igitur quod inducens, facta inductione quod Socrates currat et Plato et Cicero, non potest ex necessitate, concludere quod omnis homo currat, nisi detur sibi a respondente quod nihil aliud contineatur sub homine quam ista quæ inducta sunt."—*Post. Analy.* lib. 2, lect. 4 (Leonine ed.).

"Quanto magis proceditur versus particularia, tanto magis itur versus infinitum; quia . . . infinitum congruit materiæ, quæ est individuationis principium."—*Post. Analy.* lib. 1, lect. 38 (Leonine ed.).

of an external world, the validity of our external senses which apprehend the external world, the validity of our intellectual processes, and the principle of causality.[5]

It is often objected that the Scholastic method seems too rationalistic, aprioristic and deductive to an age whose temper is empirical, experimental and hypothetical. Again it is urged that the great defect of the Scholastic method is its independence of experience so that "It appears as if Scholastics were trying 'to spin truth out of their own interior.' "[6] Hence we wish to make it clear that we do admit that no philosophy can afford to neglect knowledge gained from singular facts if it is to be complete. And that we do reckon with the very elements which we are accused of neglecting, is borne out by the fact that the "idealists dislike the strong realistic basis of Scholastic thought."[7] Here are two extremes, two opposing systems, each one of which charges Scholastic Philosophy with the tendencies characteristic of its rival, when in reality Scholastic Philosophy, following St. Thomas Aquinas, takes cognizance of all that is true in both systems and all other systems of philosophy because it is preëminently a *common sense* philosophy.

It is characterized by the *good sense* and the *common consent* (i.e., the unwavering assent and the firm conviction of practically all men) of the ordinary man. For example, the ordinary man has very definite ideas and notions regarding knowledge.

[5] For a fuller consideration of these and other fundamental principles, cf. *ibid.*, pp. 19–25.

[6] J. S. Zybura, *Present Day Thinkers and the New Scholasticism* (St. Louis, 1926), p. 121.

[7] *Ibid.*, p. 122.

He admits the principle of contradiction in virtue of his intuitive knowledge that a man cannot be dead and alive at the same time. He insists on the fact of his personal existence (being) for you would insult him were you to deny his personal existence. And he is convinced of his capacity for knowledge, as you would soon learn were you to tell him that he is not capable of knowing anything. These intuitions are basic. They are known by the philosopher under the titles of the first principle, the first fact, and the first condition. We may now proceed to a consideration of the first of the two reasons for hypotheses in science.

1. The inability of the mind to attach a judgment about a group of facts to a first principle.[8]

The human intellect possesses an adequate and sufficient light to enable it to acquire knowledge from the facts of sensible experience.[9] For there are, as it were, certain germs of knowledge in the intellect

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[8] "Quando autem inquisitio rationis usque in ultimum terminum non perducit, sed sistitur in ipsa inquisitione, quando scilicet quærenti adhuc manet via ad utrumlibet (et hoc contingit quando per probabiles rationes proceditur, quæ natæ sunt facere opinionem et fidem, non autem scientiam) sic rationalis processus distinguitur contra demonstrativum."

"Ex hoc vero quod ejus consideratio est circa res mobiles, et quæ non uniformiter se habent; ejus cognitio est minus firma, quia ejus demonstrationes ut in majore parte sunt ex hoc quod contingit aliquando aliter se habere; et ideo quando aliqua scientia magis appropinquat ad singularia, sicut scientiæ operativæ, ut medicina, alchimia et moralis, minus possunt habere de certitudine propter multitudinem eorum quæ consideranda sunt in talibus scientiis, quorum quodlibet se omittatur, frequenter erratur; et propter eorum variabilitatem."—*De Trinitate Boetii*, lib. 6, art. 1; also cf. *De Coelo et Mundo*, lib. 2, lect. 17 (Leonine ed.).

[9] 1–2, q. 109, art. 1, ad 2.

itself: *præexistunt in nobis quædam scientiarum semina*,[10] from which we have natural knowledge. In saying that there are certain germs of knowledge in the intellect, these germs are to be understood rather as seeds which are wakened to life through sensible experience. Thus the intellect does not possess them actually, independently of the action which our bodies exercise on the soul; it simply means that they are the first intelligibles which our intellect can reach in starting from sensible experience. Neither are they innate any more than the conclusions of deductive arguments; nor are they postulates grounded on experience, for experience merely furnishes them with their raw material.

These germs of knowledge are known as the first principles: *prima intelligibilium principia*.[11] A striking characteristic of these principles is that they are the first judgments formed when we come into contact with the sensible. They are the dictates of our nature and common sense. We are certain of them.[12] But *they all rest upon the single first principle of identity*. To it we may reduce all other principles of thought. Upon it all others depend for their validity. Without it we can have no certitude, and only opinion.[13] It matters not whether we choose to express this absolute, first principle in the form of

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[10] *De Veritate*, q. 11, art. 1.

[11] *C. G.*, lib. 4, c. 11, ad Rursum considerandum. . . .

[12] Aristotle in the fourth book of his *Metaphysics* enumerates the three conditions of a first principle: The first principle ought to be one about which it is impossible to be mistaken. It should not be a supposition. It should be naturally known—that is to say, it must not be reached by a demonstration. Cf. St. Thomas, Commentary on Aristotle's *Metaphysics*, lib. 4, lect. 6.

[13] 1–2, q. 94, art. 2.; *C. G.*, lib. 2, c. 83, etc.

an affirmation, i.e., the principle of identity, or in the form of a negation, i.e., the principle of contradiction. But unless our knowledge rests upon this basic principle, it is devoid of certainty. And causality, whether efficient, formal, material or final, must likewise attach itself in some way to this same principle of identity.[14]

An example will serve to clarify these notions concerning first principles. My first judgment about any sensible object, as a tree, will be one of affirmation; which is the same as saying that Being equals Being, or the principle of identity. There is nothing conditional about this affirmation. It means that everything is its own nature, and that this tree which I perceive by my senses has its own nature. Expressed negatively this judgment is that it is impossible that this tree be itself and another tree or another thing at the same time and under the same formal consideration. This is the principle of contradiction. And when I ask the question "Why?" I immediately perceive that this tree must have a cause. Just as *being* is that which is, that which exists, or that which makes this particular tree this tree and not another tree, so *cause* is that which makes the tree to be what it is, i.e., it is that which *confers being*. This judgment of a cause is the principle of causality—as such, it "attaches itself to the principle of identity and the principle of contradiction and is an unfolding of both; it can never be demonstrated directly, but

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[14] Fulton Sheen, *God and Intelligence* (1925), Part II, chapters iv, v, gives an exhaustive treatment on the nature, origin and application of first principles in an approach to God.—pp. 142–180.

Also cf. Etienne Gilson, *The Philosophy of St. Thomas Aquinas* (English Translation by Bullough, 1924), pp. 202 ff.

merely indirectly by an appeal"[15] to the principles of identity and contradiction.[16]

The foregoing explanation of a first principle and the examples cited show us that the first principles of thought are the foundation of all our intellectual knowledge. We can have no certitude in our knowledge, unless, in the last analysis, it can be resolved back to the first principles of thought.[17] No speculative principle of any science extends beyond the range of these first principles, because all knowledge actually depends on them.[18] It is only on the condition that our first principles are firm and stable[19] that our conclusions will be firm and stable, giving us certitude as opposed to a mere opinion or probability. The nearer our conclusions are to the first principles, the more certain they are, just as the nearer a

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[15] "To deny the important principle of causality is to assert that that which has not in itself the reason of its being, *has* within itself the reason of its being—a manifest violation of the principle of contradiction. The Principle of Causality then is not the statement of a mere succession of events, nor is it empirical, nor is it the psychological expression of will-activity. It is intellectuality rooted to being."—Fulton Sheen, *Religion without God* (1928), pp. 205, 206, ff.

[16] For St. Thomas's treatment of first principles, and a reply to objections against same, cf. Commentary on Aristotle's *Metaphysics*, lib. 4, lect. 3; lect. 6, etc.

[17] "Nullius scientiæ certitudo potest esse nisi per resolutionem in prima sui principia."—1, d. 35. q. 1, art. 3 ad 2.

[18] "Insunt enim nobis naturaliter quædam principia prima complexa omnibus nota, ex quibus ratio procedit ad cognoscendum in actu conclusiones quæ in prædictis principiis potentialiter continentur, sive per inventionem propriam, sive per doctrinam alienam, sive per revelationem divinam; in quibus omnibus modis cognoscendis homo juvatur ex principiis naturaliter cognitis."—*Quod.* 8, q. 2, art. 4 c. Also 1–2, q. 3, art. 6.

[19] "Non enim potest esse aliqua firmitas vel certidudo in his quæ sunt a principiis, nisi principia essent firmiter stabilita."—*De Veritate*, q. 16, art. 2.

body is to the sun the more it participates in its light.[20]

What then are hypotheses? Hypotheses are framed in science whenever the observed facts of nature and experiment cannot be resolved back to first principles.[21] Science gives us many examples of its inability to do this. In such cases it must be satisfied to establish hypotheses and theories which seem to fit the observed facts. Newton set forth a mechanistic view of the universe which, when fully carried out, involved the conception of the universe as a system extended and ordered in space and time and capable of spatial and temporal change, but manifesting a quantitative identity throughout its changes. In the actual construction of physical science this quantitative identity came to be represented principally with two theories (for a time accepted as "laws"), the Conservation of Mass and the Conservation of Energy. *These two theories*, in their general form, *were neither axioms of knowledge nor verifiable empirical facts*, but they were a part of the general mechanical postulate, and were eventually taken as "laws" of physical science. It was therefore somewhat of a setback to the science of the nineteenth century "to find that *the principle of the conservation of matter is definitely invalid*,"[22] and that "*the two fundamental*

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[20] "Quanto medium demonstrationis est propinquius primo principio, tanto demonstratio est potior. . . ."—*Post Analy.*, lib. 1, lect. 38 (Leonine ed.), ". . . sicut intensio lucidi attenditur per accessum ad aliquid summe lucidem cui quanto aliquis magis appropinquat, tanto, est magis lucidum."—1–2, q. 22, art. 2 ad 1.

[21] Cf. *De Trinitate Boetii*, lib. 6, art. 1; *De Coelo et Mundo*, lib. 2, lect. 17 (Leonine ed.).

[22] Going on to indicate the extent of the findings of experimental physics, Millikan concludes that "matter may be annihilated, radiant

principles of mass and conservation of energy are now gone as distinct and separable verities."[23]

It is evident that the two theories of the Conservation of Matter and the Conservation of Energy, which were designated as "laws," had not been resolved back to first principles. And although it seemed for a time that they could be held with certitude because of their conformity with the limited data then available, subsequent work proved to Science the inability of the mind to attach a judgment about facts to first principles. This conclusion is fully appreciated by Professor Millikan, Sir William Bragg and other scientific authorities of today, whom we shall have occasion to quote in a later development of our study.

The same conclusion has been borne out in the work that has been done in chemistry and biology, based on the assumption of a hypothesis of a mechanistic universe. In working out these sciences although "chemical and biological facts are never merely mechanical, chemical and biological science," still, "so far as they subserve the strictly scientific interest of calculation and the formulation of general rules, [they] must always be so. The *facts* only lend themselves to this special purpose in so far as they admit of being, without sensible error, treated *as if* they conformed to the postulates of universal mechanism."[24]

[23] Continuing he says, "We have actually found instances in which mass seems to be transforming itself into energy, as well as energy into mass; in other words, we have seen the conceptions of the conservation of energy and the conservation of mass become completely scrambled." R. A. Millikan, *Evolution in Science and Religion* (1927), p. 46.

[24] A. E. Taylor, *Elements of Metaphysics* (1903), p. 288.

energy appearing in its place; . . ."—R. A. Millikan, "Twentieth Century Physics," *Annual Report of the Smithsonian Institution* (1927), p. 194.

And science was justified in so doing because the ultimate object of all physical science is the successful formulation of practical rules for action expressed in formulæ. But this *need not* in the least *be an ultimate truth*, it is only a way of stating the nature of the interest which physical science subserves, and that is one of utility. In fact, a mathematical-mechanistic theory, though still applied because of its practical utility within certain limits, is today rejected by Professor Whitehead,[25] Doctor J. S. Haldane,[26] Professor Millikan,[27] and other acknowledged scientists who are authorities and pioneers in their respective fields of science.

Granted that evolution is true (and the philosophy of a St. Augustine and St. Thomas Aquinas saw this possibility, in a restricted sense, as the natural consequence of the Scholastic principle that things gradually attain their perfection), it still stands in need of its own "laws" which must eventually be resolved back to first principles if you are to have

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[25] "It is orthodox to hold that there is nothing in biology but what is physical mechanism under somewhat complex circumstances. . . . The appeal to mechanism on behalf of biology was in its origin an appeal to well-attested self-consistent physical concepts as expressing the basis of all natural phenomena. But at present there is no such a system of concepts. *Science is taking on a new aspect which is neither purely physical, nor purely biological. It is becoming the study of organisms. Biology* is the *study of the larger organisms;* whereas *physics* is the *study of the smaller organisms.*"—A. N. Whitehead, *Science and the Modern World* (1926), p. 145. (Italics ours)

[26] J. S. Haldane, M.D., LL.D., F.R.S., *Mechanism, Life and Personality* (2nd edition, 1923), pp. 141–3 ff.

[27] "We can still look with a sense of wonder and mystery upon the fundamental elements of the physical world as they have been partially revealed in this century. *The childish conceptions of the nineteenth century are now grotesquely inadequate.*"—R. A. Millikan, *Evolution in Science and Religion* (1927), p. 27.

certitude. Grant the theory of relativity and the same must be done. But whether we take the hypotheses formulated by science in a mechanistic, physico-chemical, "organismic," evolutionary, or relativistic concept of the universe—none of these can be more than hypotheses because they are all too far removed from necessary first principles. Hence the necessity of hypotheses in the empirical sciences because of their inability to attach a judgment, or to reduce their findings, to first principles which will give us the ultimate causes, about which "science has little to say,"[28] for the reason that *ultimate questions reducible to first principles* are *outside the scope of the empirical sciences.*

We may now consider the second of our two reasons for the necessity of hypotheses in science. It is intimately connected with our first reason. It is the mutability and the variability of matter.[29]

2. There is mutability and a kind of numerical infinity in material things.

The scientist in studying the facts that come under his observation assigns a particular group of facts to a class—this is a knowledge of *classification.* Then like the chemist who analyzes a drop of water into molecules of oxygen and hydrogen, he splits each thing up into its component parts—this is a knowledge of *analysis.* And when he asks the question "Why?", he is seeking a knowledge of *explanation* of this particular group of facts. He will next formulate *a hypothesis* which seems to account for the facts observed. And

[28] *Ibid.*, p. 53.

[29] "Incertitudo causatur propter transmutabilitatem materiæ sensibilis. . . ."—*Post. Analy.* lib. 1, lect. 41 (Leonine ed.).

as he attempts to verify the hypothesis in everything about it as a particular instance of the hypothesis, he is seeking to formulate a "law." The aim of scientific knowledge is the discovery of such "laws"; it is an explanation by reference to general laws so that it may make further discoveries.

This knowledge of science is a knowledge of sensible facts which are accessible to observation by the senses. The knowable becomes identified with the sensible qualities perceived in experiment. But do we know by the senses alone?

St. Thomas, following Aristotle, distinguishes between what he calls the *deductive* sciences and the *inductive* sciences.[30] The former reveal the reason of being in things as a result of a *general observation.* Thus a deductive science starts from certain principles in necessary matter and by their combination enables one to discover new relations between them. An inductive science, however, restricts itself to a *particular observation* of facts and an explanation of these facts. The empirical sciences are essentially sciences of particular observation such as physics, biology, zoölogy and physiology. They are inductive sciences and are not wholly outside time because they study natures in their material condition. But the deductive sciences, or sciences of general explanation, consider the nature of things apart from their concrete existence; e.g., whether or not a particular square ever existed, it would still be true that of its very nature it includes four right angles.

St. Thomas contends that all sciences of observation and description are only *probable* in their conclusions because of the variability of the particular cases which

[30] *Post. Analy.* lib. 1, lect. 1 (Leonine ed.).

they study.[31] Hence we have hypotheses in such sciences. His argument is based on the fact that matter or the material principle of material, sensible things is determinable, and because it is infinitely determinable there is a possibility of an infinity of individuals in the same genus, as well as a possibility of multiplied tests in the same genus.[32] Therefore, the more we have of matter, the more we have of the indefinite.[33] The first element represents the formal aspect of hypothesis, while the second represents its material aspect.[34]

A further consideration of the sciences of observation such as physiology, biology, chemistry and physics, will help to illustrate the reason for *probability* in their conclusions, or in other words, their need of hypotheses. Each of these sciences is concerned with the nature of certain material things; e.g., the chemist studies the various elements which enter into the composition of things, biology studies the various living organisms of plant and animal life. But the chemist studies the composition of things by studying *this* particular element, the biologist studies life by studying *this* particular organism. And the nature

[31] "Ex hoc vero quod ejus consideratio est circa res mobiles, et quæ non uniformiter se habent, ejus cognitio est minus firma, quia ejus demonstrationes, ut in majori parte sunt ex hoc quod contingit aliquando aliter se habere; et ideo quando aliqua scientia magis appropinquat ad singularia, sicut scientiæ operativæ, ut medicina, alchimia et moralis, minus possunt habere de certitudine propter multitudinem eorum quæ consideranda sunt in talibus scientiis, quo quodlibet si omittatur, frequenter erratur, propter eorum variabilitatem." In *De Trinitate Boetii*, q. 6, art. 1.

[32] "Infinitum congruit materiæ quæ est individuationis principium." *Post. Analy.* lib. 1, lect. 38 (Leonine ed.).

[33] "Quanto magis proceditur versus particularia, tanto magis proceditur versus infinitum." *Post. Analy.* lib. 1, lect. 41 (Leonine ed.).

[34] Fulton Sheen, *God and Intelligence* (1928), p. 206.

of each thing, because of the matter which enters into its composition, is capable of indefinite multiplication. Thus the nature of plant life is not limited to present living plants, but is applicable to the untold billions of plants in the past and in the future as well. So too, the nature of man is not limited to John and Hugh, though both are men. It is applicable to all men of the past, present and future. John and Hugh are the same in nature, but they differ because of the material configurations which constitute the principle of individuation,[35] which makes each an individual, and an incommunicable whole.

As matter is capable of being multiplied indefinitely in various natures, there is no limit to the number of singular instances which each science may study. The possibility of error, however, increases with the multiplication of particulars. Consequently, as long as an empirical science has not verified every possible instance, it can have no absolute certainty and must rest content with hypotheses, theories, or "laws" which are all conditioned by varying degrees of probability.[36]

Sciences of pure observation, therefore, are only probable in their conclusions and must have recourse

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[35] For a clear-cut, concise, and excellent exposition of the scholastic notion of the principle of individuation cf. *De Principio Individuationis*, cap. 3. Note: Grabmann and Mandonnet are divided as to the authenticity of this work. However, the more recent critical examination of the writings of St. Thomas Aquinas, as represented by Grabmann, favors the acceptance of this *opuscula* as an authentic work of Aquinas. Cf. Martin Grabmann, *Beiträge Zur Geschichte Der Philosophie Des Mittlealters* (Münster, 1920), XXII, p. 274; Pierre Mandonnet, O. P., *Des Écrits Authentiques de S. Thomas D'Aquin* (Fribourg, 1910), p. 109.

[36] "Ex hoc vero quod ejus consideratio est circa res mobiles. . . . frequenter erratur, propter eorum variabilitatem." In *De Trinitate Boetii*, q. 6, art. 1.

to hypotheses. In this way do they proceed to further knowledge as each hypothesis is subjected to, and verified by, other particular facts. This does not mean that there is no certainty in these sciences for the chemist is certain of the facts which he observes, as is the biologist, but the conclusion from the facts observed and enumerated is always subject to verification by other as yet unknown facts. Here, there is limitation.

Carrying out the principle that the empirical sciences can give us only probability in their conclusions, St. Thomas goes on to make a practical application. He says there is no reason why the Ptolemaic system (which was accepted until the sixteenth century) of the universe should be the true one. For, when scientific methods are improved and perfected, another theory may be set forth which would be more in accord with the facts.[37] Aristotle himself did not accept all the scientific conclusions of his day, for like St. Thomas, he saw that they were only problematic and by no means absolutely certain.[38]

3. Modern science confirms judgment of St. Thomas.

Science has not always believed its conclusions to give certitude, although we do meet with scientists in all ages who did think so. In the latter part of the nineteenth century many of the ablest physicists did think that their conclusions were final. The principles of the conservation of mass and energy

[37] "Licet enim, talibus suppositionibus factis, apparentia salvarentur, non tamen oportet dicere has suppositiones esse veras; quia forte secundum aliquem alium modum, nondum ab hominibus comprehensum apparentia circa stellas salvantur."—*De Coelo et Mundo*, lib. 2, lect. 17, n. 2 (Leonine ed.).

[38] Cf. Fulton Sheen, *Religion without God* (1928), p. 228.

were among such conclusions. These physicists thought "that it was *probable* that all the great discoveries in physics had already been made and that the future progress was likely to arise only by increasing the refinements of our instruments."[39] With all their confidence in the conclusions which had been obtained, they thought it only *probable* that these would not need revision. The acknowledged scientists of the present day, *do not* as did their predecessors, or their present day popularizers, claim that science gives us certainty.

The very fact that science in striving for truth has to vary its theories from time to time, as new facts are discovered, confirms the opinion of St. Thomas, that in themselves, scientific conclusions, since they are based on incomplete induction, give only a probable certitude. Professor Millikan says openly that the scientists "are slowly learning more of the rules in nature's game."[40] Referring to the revolutionary discoveries that have been made in physics due to radio-activity, he says that their consciousness of their limitations may well impart to them "an attitude of humility and reverence" when facing the problems of nature and truth.[41] Dr. Haldane in his London University Lectures entitled *Mechanism, Life and Personality*,[42] repeatedly insists that scientists, as scientists, must realize the limitations of all empirical science. He willingly concedes that true philosophy has the broader and better grounded outlook on the universe. This same conclusion is

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[39] R. A. Millikan, *Science and Life* (1924), p. 8.
[40] R. A. Millikan, *Evolution in Science and Religion* (1927), p. 27.
[41] *Ibid.*, p. 60.
[42] *Op. cit.* (New York, 1923).

attested by other acknowledged scientists such as Duhem,[43] H. Poincaré,[44] G. Milhaud,[45] E. Boutroux,[46] O. W. Richardson,[47] G. N. Lewis[48] and others. For example, Sir William Bragg, President of the British Association for the Advancement of Science, in his first address of September 5, 1928, said, "Scientific research in the laboratory is based on simple relations between cause and effect in the material world. These have at times been adopted, many of us would say wrongly, as the main principle of a mechanistic theory of the universe. The relation holds in our experimental work: and as long as it does so, we avail ourselves of it, necessarily and with right. But just as in the case of research into the properties of radium we use a corpuscular theory or a wave theory according to the needs of the moment, the two theories being actually incompatible to our minds in their present development, so the use of a mechanistic theory in the laboratory does not imply that it represents all that the human mind can use or grasp on other occasions, in present or in future times."[49] Sir William Bragg therefore rightly said that the

[43] *La Theorie Physique* (Paris, 2nd ed., 1914), pp. 52–76.

[44] "If we look at *any particular law*, we may be certain in advance that it can only be *proximate*. It is, in fact, *deduced from experimental verifications*, and these verifications were and *could only be proximate* . . . no particular law will ever be more than approximate and probable." —*The Value of Science*, pp. 129, 130. (Italics ours).

[45] *Essai sur les Conditions et les Limités de la Certitude Logique* (2nd ed., Paris, 1898).

[46] *Science and Religion* (New York, 1905).

[47] *Problems of Modern Science* (1922), p. 79.

[48] "The *scientist* is a practical man and his are practical aims. He *does not seek the ultimate, but the proximate*. He does not speak of the last analysis, but rather the next approximation."—*Anatomy of Science* (1926), p. 6 (Italics ours)

[49] Address printed in full in *Nature* (London, September 8, 1928).

scientific man should be "the last man in the world to throw away hastily an old faith or convention or to think that discovery must bring contempt on tradition . . . The distinction between truth itself and attempts to embody it in words is so constantly forced upon the student of science as to give his statements on all matters a characteristic form and expression. And this is, I think, one of the reasons why men are often needlessly alarmed by the new announcements of science and think they are subversive of that which has been proved by time."[50]

In concluding we wish to acknowledge the great need, and the importance, of hypotheses in the realm of empirical science. The hypotheses or theories of Newton were invaluable in aiding the discoveries of those who followed him. And "in so far as Newtonian mechanics was a body of experimental facts it is eternally true."[51] However, no hypothesis of science is to be offered as an ultimate truth, much less as a principle of universal application. "For *science is an objective study of the facts of nature.* It uses any and all *hypotheses* which *assist in correlating these facts,* and its many hypotheses have had varying degrees of success in making such correlations, but *science never commits itself as a matter of faith to any of them, not even to evolution. When it does so it ceases to be science.*"[52] Science, therefore, finds hypotheses useful and necessary. Its conclusions may give us a very high degree of probability, but this is not certitude. Further, faith in God is not exercised on matter. Hence there is want of logic in the modern

[50] *Ibid.*
[51] R. A. Millikan, *Science and Life,* p. 70.
[52] *Ibid.,* p. 77. (Italics ours)

position of arguing that, because there is probability in the science of matter, therefore there is probability in the science of spirit.

II. HYPOTHESES ARE VALUABLE FOR SCIENCE BUT NOT FOR A NATURAL KNOWLEDGE OF GOD

A general conclusion is deducible from the foregoing, namely, that science is merely probable or hypothetical in its conclusions; and this for two reasons: first, because the so called scientific theories or hypotheses are remote from clear and necessary first principles, and secondly, because science can never verify its theories in every individual of the type studied on account of the number and variability of individuals in each type. It is remarkable too, that these two reasons of St. Thomas, based on metaphysics and formulated almost seven centuries ago, are borne out by acknowledged scientists and philosophers of science though not always for the same reasons.

Our considerations in this chapter have thus far been only a preparation for the solution of the problem in hand, that is, "Is the knowledge of God a problematic and hypothetic knowledge as scientific knowledge is, or is it a certain knowledge?" Or, in other words, because scientific theories limit themselves to sensible phenomena, does it follow that our knowledge of God is of the same kind? It is our position that our knowledge of God is not of the same kind for these two reasons:

1. The proof for the existence of God is attached to a first principle.
2. God is spiritual, hence removed from the vicissitudes of matter.

1. The proof for the existence of God is attached to a first principle.

Briefly stated our argument is as follows: we have shown that the reason for probability in scientific conclusions is science's failure, or inability, to attach a knowledge of facts as known in hypotheses to clear and necessary first principles. However, the knowledge of God is based on the principle of causality, and that principle, as we have previously shown, flows from, and is an unfolding of, the principle of identity and the principle of contradiction.[53] Hence, our knowledge of God is not problematic in the scientific sense of this term. It is a certain knowledge.

As has been previously shown, the empiricism of science starts with concrete, sensible facts, but limits itself to and derives all its knowledge from these sensible facts of experience. It assumes that concrete knowledge is the only true knowledge. The principle it employs, its "laws" and even its necessary judgments are all reducible to associations. Our percep-

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[53] Cf. pp. 57-58.

"To deny the important principle of causality is to assert that that which has not in itself the reason of its being, *has* within itself the reason of its being—a manifest violation of the principle of contradiction. The Principle of Causality then is not the statement of a mere succession of events, nor is it empirical, nor is it the psychological expression of will-activity. It is intellectuality rooted to being. What is generally called an effect is that which has passed from non-being to being. This transition can not be traced to the being which has already come into existence, otherwise it would have to have been before it was. Here there would be violation of the principle of identity and the principle of contradiction. Nothingness can never be the cause of being. If something exists, there must have been some being distinct from it which brought it into existence, or which produced the transition. It is in this sense that there can never be an effect without a cause."—Fulton Sheen, *Religion without God*, pp. 205, 206.

tions of what *is*, according to its dictum, can never give us certitude of *what must be*. Knowledge of what happens cannot give us knowledge of what will necessarily happen. Therefore, its conclusions give us only a probability that its hypotheses are true.[54]

But if the knowledge of God is based on a first principle, on the principle of causality,[55] as it is, then there certainly is no need of proving the existence of God by, or restricting our knowledge of Him to, the scientific method of hypothesis. For man can have a certitude which is over and above that of concrete facts, namely judgments attached to first principles. Thus, by the principle of identity, two plus two is seen to make four as soon as the terms are understood. And they make four at all times and everywhere. The certitude of conclusions, based on such first principles, transcends experience.

Man's knowledge is not limited to the abstractions of physical science or those of mathematics; he can know truths based on a higher degree of abstraction—the truths of metaphysics.[56] And our knowledge of

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[54] H. Poincaré, *Value of Science*, p. 130.

[55] I, q. 2, art. 2 ad 3; *C. G.*, lib. 1, cap. 12.

[56] St. Thomas in his Commentary on the *Metaphysics* of Aristotle, insists upon three supreme degrees of abstraction. *The first degree of abstraction*, known as the *science of physics*, is concerned solely with quantity in *change* or *movement*. ("Physica enim est circa inseparabilia et mobilia"—*Metaphysics*, lib. 6, lect. 1. "Physics . . . deals with quantities. Of qualitative differences it offers no explanation."—Sir Henry Jones, *A Faith that Enquires*, p. 32.) Incidentally it includes all the empirical sciences because it "is concerned with matter inasmuch as it is moveable, sensible and clothed with certain qualities and properties which are experimentally observable; it considers things in their concrete and material reality, making abstraction only from the fact that a thing is singular." Cf. Fulton Sheen, *Religion without God*, p. 235. *The second degree of abstraction*, known as the *science of mathematics*, prescinds from movement and all sensible qualities of matter considering only *quantity*

God is based on the abstractions of metaphysics with which empirical science is no way concerned, limiting

or number or extent itself. ("Mathematica circa quædam immobilia, quæ tamen non sunt separata a materia secundum esse, sed solum secundum rationem."—*Metaphysics, ibid.*) "Mathematics considers material things just as physics, but it makes abstraction from all their sensible properties such as light, heat, color, and considers only quantity, number, or extent by itself. The object of thought cannot *exist* without sensible matter, but it can be conceived without it, for nothing sensible or experimental or tangible enters into the definition of a line or a cube root." Cf. Fulton Sheen, *ibid.*, pp. 235, 236. These two degrees of abstraction are recognized by Sir Henry Jones and others who advocate faith as a hypothesis, but unfortunately they are thought to be ultimate; whereas there is still *another degree of abstraction, that of metaphysics.* ("Quædam igitur sunt speculabilium quæ dependent a materia secundum esse, quia non nisi in materia esse possunt et hæc distinguntur, quia dependent a materia secundum esse et intellectum, sicut, illa in quorum diffinitione ponitur materia sensibilis: unde sine materia sensibili intelligi non possunt, ut in diffinitione hominis oportet accipere carnem et ossa, et *de his est physica sive scientia naturalis.* Quædam vero quamvis dependeant a materia secundum esse, non tamen secundum intellectum, quia in eorum diffinitionibus non ponitus materia sensibilis, ut linea et numerus, et *de his est mathematica.* Quædam vero sunt speculabilia quæ non dependent a materia secundum esse, quia sine materia esse possunt, sive numquam sint in materia, sicut Deus et angelus, sive in quibusdam sint in materia et in quibusdam non, ut substantia, qualitas et actus unum et multa, et hujusmodi, de quibus omnibus est theologia, *id est divina scientia*, quia præcipium cognitorum in ea est Deus. Alio nomine *dicitur metaphysica*, id est transphysica, quia post physicam discenda occurit nobis, quibus ex sensibilis competit in insensibilia devenire. Dicitur etiam *philosophia prima* in quantum scientiæ aliæ ab ea principia sua accipientes eam sequuntur."—*De Trinitate Boetii*, q. 5, art. 1.) It is not concerned with things inasmuch as they are in movement, nor inasmuch as they are quantitative, but simply inasmuch as they *are* or have *being.* Aristotle called it the first and noblest of all sciences on the ground that "if there really exists a substance absolutely immaterial and immutable, it must be some Divine Being, the first and supreme principle of all things." Cf. *Metaphysics*, lib. 10, c. 7, n. 5 and 6. (St. Thomas calls it the "most honorable of sciences because it is concerned with the most honorable genus of being, in which are contained divine things." *Metaphysics*, lib. 6, lect. 1) Cf. Fulton Sheen, *Religion without God*, pp. 235 ff., to which we are greatly indebted for this matter.

itself, as it does, to a combination of the abstractions of physics and mathematics.

A consideration of the theory of evolution will serve to bring out the point that we are making. Science in advocating evolution sets forth: first, that the world is eternal, and secondly, that evolution is a universal phenomena. Accepting these two conclusions as true, although we do not admit that they are proven (and if proven, they would still be in accord with the basic principles and conclusions of Scholastic Philosophy—St. Augustine himself conceived of such a possibility in his doctrine of *rationes seminales*), both demand the existence of a First Cause or God.

St. Thomas admitted that there is no metaphysical necessity for the commencement of the world. He further conceded that human reason alone cannot prove either that the world had a beginning, or that it could not have had a beginning.[57] His argument

[57] "By faith alone do we hold, and by no demonstration can it be proved, that the world did not always exist, as was said above of the mystery of the Trinity (I, q. 32, art. 1). The reason of this is that *the newness of the world cannot be demonstrated on the part of the world itself.* For the principle of demonstration is the essence of a thing. Now everything according to its species is abstracted from *here* and *now*; whence it is said that universals are everywhere and always. Hence *it cannot be demonstrated that man, or heaven, or a stone were not always.* Likewise *neither can it be demonstrated on the part of the efficient cause, which acts by will. For the will of God cannot be investigated by reason,* except as regards those things which God must will of necessity; and what He wills about creatures is not among these. . . . But the divine will can be manifested by *revelation,* on which faith rests. Hence *that the world began to exist* is an *object of faith,* but *not of demonstration or science. And it is useful to consider this, lest anyone, presuming to demonstrate what is of faith, should bring forward reasons that are not cogent, so as to give occasion to unbelievers to laugh, thinking that on such grounds we believe things that are of faith.*"—I, q. 46, art. 2 c.

Note: The opening of the twentieth century has definitely brought with it a most astounding crisis in scientific thought, as well as in the

is founded on the fact that God, as the efficient cause of the universe, acts by will; and "the will of God cannot be investigated by reason." However, from the existence of the world we can prove the existence of its efficient cause. Science in considering effects restricts itself to the chronological order, and as has been conceded, in this order it cannot be proven by reason that the universe had a beginning. But the science of metaphysics prescinds from the time-element and considers the question of the earth's existence and its beginning in the ontological order, i.e., the order of being. As such, the problem is a transcendental one and not one of duration. Whether the universe existed eternally or not has no bearing on the problem. Because if it existed eternally, then it eternally depended upon its efficient cause (God), who brought it into being through creation. To state this in other words—the world has *being*. In virtue of the effects of its being or existence, science can observe and may be able to account for the chronological process of how the world evolved to its present state. But it cannot tell us *why* it exists, whether its

attitude of scientists towards the ultimate problems of philosophy and religion. Thus we see men like Eddington, Millikan, Whitehead and others all firm in their adhesion to, and open in their avowal of, theistic evolution. Though Dr. Whitehead sets forth a theistic concept of eternal evolution, which is seemingly dependent upon God as the First Cause, still his doctrine of "creativity" taken together with the problem of evil (before which he flounders hopelessly), lead him to give us a rather tawdry God who is neither infinitely divine nor infinitely powerful because as such he believes God would be the source and cause of evil. If he would only follow his suggested solution of the problem of evil back into the teachings of the early Fathers, with which he seems to show no acquaintance, there would be less confusion in his theory. For an excellent critical study of "Dr. Whitehead's Philosophy of Religion," by Professor A. E. Taylor, cf. *Dublin Review* (July, 1927), pp. 17–41.

existence be eternal or not. Its *being* is not necessary and sufficient. Therefore it is caused by some other Being from which it received its being or existence—this Being or First Cause is God. God's existence, then, can be proven and is necessary even according to a theory of evolution that postulates an eternal world.

Now let us pass on to the second postulate, that is, that evolution is a universal phenomenon. Here, again granting that *being* is evolving, or even perpetual, if you will—it still must have a source. To remain within the *how* of the process, i.e., in the chronological order, as science does, will give us no answer as to the *why*. For this we must again have recourse to metaphysics by considering the problem in the ontological order. Then, if there is evolution, there is a threefold "reason for the existence of God, because God must be postulated, first, as the source of being as such (God Creator); secondly, as source of being inasmuch as it is in evolution (God First Mover); and thirdly, as cause of the order according to which the world evolves."[58] In each instance, and from every angle in the ontological order, we must go back to a first source and first cause of the being that is in evolution.

Evolution therefore proves God's existence because without Him nothing would exist; nor could any existing thing be in evolution except through Him and because of the order which He has established. Evolution, if true, therefore, proves God's existence because its postulates are based on the existence

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[58] Fulton Sheen, *God and Intelligence*, pp. 236–237, quoting A. Sertillange, "L'Idée de Création," *Annales de l'Institute Superieur de Philosophie de Louvain* (1920), pp. 567–569.

of a First Cause—and His existence can be held with certitude because the proof is attached to a first principle, the principle of causality.

Following Aristotle, St. Thomas enumerates five ways by which we can show that God exists.[59] Yet, each of these proceeds from effect to cause. All are reducible to the first principle of causality.[60] And because they are reducible to a first principle, man in virtue of "his reason or intellect, in so far as it contains the first principles" (which are known to us by the natural light of the intellect) is "directed to his natural end, God, by a natural inclination."[61] Man's knowledge of God's existence, therefore, is based upon, and directly attached to, a first principle, in virtue of which it is not a problematic but a certain knowledge. For if God, the First Cause, did not exist,

[59] I, q. 2, art. 3 c; also *C. G.*, lib. 1, cap. 13.

[60] To the objection that the effects as seen in the world are not proportionate to God "since He is infinite and His effects are finite," St. Thomas replies, "From effects not proportionate to the cause no *perfect* knowledge of that cause can be obtained. Yet from every effect the existence of the *cause* can be clearly demonstrated, and *so we can demonstrate the existence of God from His effects; though from them we cannot perfectly know God as He is in His essence.*" I, q. 2, art. 2 ad 3. Also *C. G.*, lib. 1, c. 12.

Etienne Gilson says "we must remember that in the arguments whereby we prove the existence of God, we cannot take as a principle the essence or quiddity of God, which is unknown to us. The proof *propter quid* being impossible, we are left with the proof *quia.*" *In other words the proofs for the existence of God are based on the principle of causality.*—Etienne Gilson, *The Philosophy of St. Thomas Aquinas* (1924), p. 44; cf. chapters iii and iv for a fuller treatment.

[61] St. Thomas says that *man is directed to his connatural end, God, by a natural inclination*, and this in two ways. "*First, by his reason or intellect, in so far as it contains the first principles* which are known to us by the natural light of the intellect, and which are *reason's starting point both in speculative and practical matters.* Secondly, through rectitude of the will which tends naturally to good as defined by the reason."—1–2, q. 62, art. 3 c.

then nothing would exist. And since the universe and things do exist, therefore God, the Source or First Cause of their being, exists.

2. God is spiritual, hence removed from the vicissitudes of matter.

The material world which meets us in experience does not provide the explanation of its own existence, or of the forces which control it, or of the laws which govern it. The explanation must be sought in some cause or source outside and beyond the universe itself. There must be some Being or Cause that transcends all other being and all other causes—and which has ordered the forces at work as expressed by the "laws" which science has observed through its experiments. The highest form of existence or being of which we have any experience or knowledge is that of the spirit or intellect in man, because man is composed of matter and spirit and because of the interaction of the one upon the other. The created universe is explained and understood only in virtue of this spirit or intellect of man. The lower, however, must always be explained in terms of the higher. And man together with the universe can be explained only in virtue of a higher spirit and order of existence—the highest of all possible existences, God Who is Pure Spirit. If He is Pure Spirit, He is removed from the vicissitudes of matter, and from the realm of scientific hypotheses. That God is so removed will now be shown in two ways: first, because since we are dealing with God, we are not dealing with a function such as is formulated by, and such as is the object of, empirical science, nor are we dealing with something that is useful in relation to something else; secondly,

because God is by His very nature independent of the mutability of matter.

Hypotheses, however, of their very nature bear directly on function and utility. The scientist experiments with a group of facts in order that he may formulate a "law" or hypothesis which is an expression of "partial and incomplete aspects" of physical reality. The formula represents only a working hypothesis of limited practical application,[62] because it is the application of physical and mathematical principles to a reality which it can never express fully.[63] These hypotheses or formulæ are merely a way of stating the nature of the interest which physical science subserves, that is, utility. They may explain the arithmetical function of one part of a machine in relation to another part. Indeed, they are ideal in abstract mechanics where their postulates are rigidly carried out. They may even explain the activity of a certain group of facts, and tell us *how* they take place. They are invaluable in enabling the scientist to proceed step by step in acquiring knowledge of physical and sensible phenomena, because the verification of one hypothesis paves the way for the formulation of others. But hypotheses do not get beyond their interest of function or utility.

However, when we are dealing with God we are no longer dealing with a function or with one thing that is useful in relation to another thing. For in dealing with God we are dealing with something that is outside function and utility—the two reasons for

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[62] J. S. Haldane, *Mechanism, Life and Personality* (1923), p. 140, 150.
[63] *Ibid.*, p. 152.

hypotheses. Hypotheses do not create existence, they presuppose existence. And if things exist, it is because they have their existence from a First Cause who gave them their being and conserves them in their being as long as they exist. But since spirit exists, as it does in man (e.g., his soul or intellect), then the First Cause must be Pure Spirit as the source and cause of the spirit in man. Therefore God, as Pure Spirit, not only exists, but as Pure Spirit He is removed from the approach of any empirical scientific method.

Again, we may test an invention and see if it works. But God cannot be submitted to the test of the "spiritual laboratory of the world." "What makes the test possible for an invention is the very thing that makes it impossible with God. God is shown to *be* by the intellectual and not by the empirical" or sensible order. "He must therefore be the object of *intellectual* and not *empirical* investigation."[64]

We reach the same conclusion, namely, that God is spiritual and hence removed from the exigencies of matter, if we consider the nature of God. It is true that His nature or essence cannot be known perfectly by man. Being Pure Spirit He cannot be the direct object of our knowledge. But we can know Him imperfectly in a natural way by proceeding from the visible things of the world. From His hierarchy of creatures we can gain a knowledge of Him as their Cause and Creator. The more thorough our comprehension and explanation of the universe, the more thorough will be our knowledge of its

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[64] Fulton Sheen, *God and Intelligence* (1925), p. 208.

Creator. The deeper our comprehension of *being* the clearer will be our knowledge of the First Being who is the source and cause of all being. For the perfections of His creatures but feebly reflect His own infinite perfections.

In the hierarchy of existing things known to man we find a gradation of being ranging from inanimate matter, through plant and animal life, on up to man who is composed of matter and spirit. As we mount the scale there is an ever increasing tendency to rise to pure actuality, i.e., perfection. There is also a corresponding freedom and independence from the limitations and exigencies of brute matter together with a transcendence of being. For example, the chemical elements have being or existence but are subject to their own particular laws of nature. Plant life rises above these limitations of inanimate matter inasmuch as it is able to incorporate and make use of the elements of nature to minister to its needs for a higher form of existence or being. In turn, the existence or being of animal life is still higher and rises above the limitations that govern plant life. While in man we have the highest form of being known in this world of ours. All other creatures are subservient to him. He can experiment with the "laws" that limit the activities of the creatures beneath him. He enjoys a more perfect form of being than all other creatures of this visible hierarchy. And yet his being and perfections are all participated from some higher being. For all of the hierarchy share, in varying degrees, a being of which they are not the cause, and a being which they do not possess in its plenitude. This varying participation in being points to a Being that transcends all other being,

towards a perfection that transcends and embraces all other perfections.[65]

And since the creature possesses its perfections by participation inasmuch as it has received them from its Source, God must possess them in their plenitude because there is nothing in God which is not His own being.[66] In like manner, as man participates in a life of spirit, he too has received this life of spirit from the Source of all life who must possess spiritual life in its plenitude. He must be Pure Spirit, and as such is independent of the limitations and the mutability of matter. He is, then, also free from the hypotheses of empirical science which are necessary because the variability (which makes hypotheses necessary) of the individuals, constituting any one group of facts which science studies, arises from the mutability of matter.

This last argument, although not an apodictical proof, shows us that from a consideration of the visible created and graded hierarchy in the universe, we would naturally expect God to be Pure Spirit. The proof itself is reducible to the principle of causality as has already been indicated.

In conclusion we wish to emphasize the fact that reality can exist, and does exist independently of its entrance into the human mind. The existence of the New York Central Terminal does not wait upon my knowledge of it. The existence of trees, flowers and birds do not depend upon the biologist's knowledge of them. Nor does the material object of any science

[65] For just as in the animal, matter finds the principle of life to organize it, so the whole of matter must have a Life to organize it; a Life which is the summing up of all life (vegetable, animal and intellectual) which exists. This Life is God who is the Source of all life and being.

[66] *C. G.*, lib. 1, cap. 32, "nihil est in Deo quod non sit ipsum esse divinum, ut ex dictis (cap. 23) patet, quod in aliis rebus non accidit."

depend upon that science for its existence. On the contrary, each science presupposes the existence of its object. But God by His very nature, as Pure Spirit, does not fall within the domain of empirical science. Its very method of approach precludes Him from ever becoming an object of its inquiry or investigations. Hence, His existence in no way depends upon any of the empirical sciences, nor even upon the science of metaphysics itself. The latter can, however, and does, enable us to rise from being and the creatures of the universe to Him Who is Being and the Creator of all things. Through the science of metaphysics we can rise from creature to Creator, from the finite to the Infinite. But the Divine Essence must remain unknown for us in this world. Finite in understanding, the human mind can never be said to know God in the sense that He is comprehended as He is. The finite cannot define the Infinite. Therefore, although we have certitude of His existence, although we may know much concerning His nature from a knowledge of His effects in the universe, still the fullest knowledge of the Divine Nature vouchsafed to us in this life is the certitude that God remains beyond all that we may think concerning Him. But that certitude, together with the knowledge that we can possess of Him in a natural way, is enough to make Him the object of our faith.[67]

III. DISASTROUS EFFECTS RESULTING FROM THE UNIVERSALIZATION OF THE METHOD OF THE EMPIRICAL SCIENCES.

Modern science has furnished men with a method that is most useful in helping man to work out many

[67] *De Veritate*, q. 2, art. 1 ad 9.

discoveries that have contributed to his physical comfort and happiness. The sea, the earth and air have been conquered. Each in turn is made to render service to man. Through science man is increasingly becoming master of the universe. And so elated are the self-appointed interpreters and popularizers of science that they would have men sing a new psalm of praise to the theme of "Praise Science, from which all blessings flow." Their efforts have not disproven God, but they have tended to displace Him. By stressing things material and sensible, minimizing things spiritual, they have in reality aided in enslaving man to a material progress of science rather than make him the master of things material. By a misplaced emphasis on the true worth of the fruits of science, the latter has been enshrined upon man's altar to the unknown god. Science is expected to bring about the long expected "Millennium." It is the universal solvent, the panacea for all ills. The old truths that were once a common heritage and the result of clear thinking that went back to the fundamental verities of life have been discarded, and man not only seeks new gods but he is begetting religion without God. This is the consequent, in a large measure, of applying the method of empirical science to every field of knowledge.

The universalization of the method of the empirical sciences, such as carrying over the hypothesis to the knowledge of God, has had several disastrous effects. Among these we shall take cognizance of the following:

1. It has so emphasized *description* as to make us forget *explanation.*

2. It has resulted in a *confusion of identifying existence* with *utility.*

3. The "*as if*" is *a kind of mental hypnotism.*

4. It has resulted in a failure to see the *limitations of the application of empirical scientific methods.*

1. Description has been so emphasized as to make us forget explanation.

Empirical science "is a particular kind of knowledge reached by certain methods of observation and experiment, and verifiable by all normally constituted minds that can play the game. *Its aim* is *the description of things and organisms, their activities and histories in the simplest terms. Its outcome* is a series of *formulæ* which we optimistically call laws of nature. Few of them can be regarded quite up to that level."[68]

When science studies the strata of the earth or the weathering of rocks, as it does in geology, its only scientific question is "*How?*" It is quite satisfied when that description is given. But all that science gives us is a series of the different steps or processes explained according to certain laws or formulæ of chemistry and physics. It does not concern itself with, nor does it ask the question "*Why?*" simply because "*science deals with descriptions, not with explanations.*"[69] "The scientist is content to ask what the fact is; he does not ask why it is, or in other words, what it means."[70]

Science has, indeed, given us a body of knowledge

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[68] J. Arthur Thomson, "Are Religion and Science Irreconcilable,—Render Unto Caesar," *Forum*, (September 1927), p. 337. (Italics ours) Also cf. C. E. M. Joad, *Mind and Matter*, pp. 7, 8; J. S. Haldane, *Mechanism, Life and Personality* (1923); A. E. Taylor, *Elements of Metaphysics*, pp. 192, 193, 284; R. A. Millikan, *Evolution in Science and Religion* (1927).

[69] J. Arthur Thomson, *ibid.*, p. 337. (Italics ours)

[70] C. E. M. Joad, *ibid.*, p. 8.

gained by the pursuit of certain methods of observation and experiment. It formulates its results in terms of the measurable, registrable and verifiable. It gathers in all that can be caught with the particular kind of net which its method employs. Hence it is only a *partial knowledge*, reliable so far as it goes in its own realm, and often approximates reality. It is an abstract kind of knowledge based on the first and second degrees of abstraction. But when it is pursued for its own particular purposes, it deliberately adjusts the mesh of its net so that it catches only certain kinds of fish. If this is all that it wishes to strive for, all well and good. We gladly acknowledge the work that it does, we gratefully receive the contributions that it makes to the sum total of our knowledge, but we cannot admit that this method is "the only right of way to reality."[71] And yet this is precisely what is asserted by the popularizers of the scientific method. Faith as a hypothesis is but one of its conclusions in fields that are entirely beyond the realm of the method of empirical science.

The "*Why?*" which is posited by many people who are not content with knowing the facts that science gives them, receives its answer from true philosophy, i.e., the supreme science of metaphysics which synthesizes the results of all other sciences.[72] It is because "metaphysical knowledge is the most

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[71] J. Arthur Thomson, *ibid.*, p. 340.

[72] Scientific authorities in confirmation of this position, as held by Scholastic Philosophy, will be cited when we make a fuller treatment of this phase of our study in this chapter under title 4. *Limit to application of methods of empirical science.* In passing we may mention the names of J. Arthur Thomson, R. A. Millikan, C. E. M. Joad, J. S. Haldane, A. E. Taylor.

universal kind of knowledge"[73] that man, from early childhood to the end of his life, is ever asking the eternal question "*Why*?" Man naturally seeks truth. He seeks an explanation of the universe about him. And he is endowed with an intellect that is capable of transcending the visible universe so that he may plumb the depths of life and being.

Aristotle is probably the supreme metaphysician of all time. He has long since given us an explanation of many of the problems that confront us today, yet he knew nothing of the results and fruits of modern science. What a contrast is this to the continual shifting, readjustment or abandonment of the hypotheses of empirical science in its attempt to answer some of the problems which he solved by an application of the science of metaphysics. The reason for the difference is that metaphysics, i.e., true philosophy, is the science of *being*; it synthesizes all knowledge; it deals with all reality; whereas each of the empirical sciences studies only one aspect of physical or sensible reality. The grand total of this empirical knowledge, when summed up by these sciences (as it rarely if ever is), is, at best, but one of correlation rather than unity.[74] Philosophy alone sees the universe as a whole.

It is precisely because the conclusions of each of the empirical sciences are valid only in their respective fields that a universalization of such conclusions brings disaster in its wake. A mechanistic hypothesis and outlook on the universe is valid enough for all practical purposes in problems of

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[73] W. E. Hocking, *The Meaning of God in Human Experience*, p. 215.

[74] J. Arthur Thomson, Gifford Lectures entitled *The System of Animate Nature* (1920), p. 36.

mechanics (and, in a very limited way to other very special problems of other sciences), and although once accepted for physics, must now be revised because of the findings of radio-activity. Likewise, a physico-chemical and a biological hypothesis each has its utility. But no one of these, nor all taken together, will give us an understanding of what life is, much less can they give us an adequate explanation of the universe. The world-outlook of each is limited to that which it sees under the microscope or in the test-tube, and that certainly is not a complete view of the universe. If the scientist, or its popularizer, attempts to apply any scientific theory to the entire universe, be the theory mechanistic, physico-chemical or biological, and if he neglects philosophy, the result will be disastrous. "The inevitable result for men of science who ignore the history and results of philosophy is that they are far more apt to fall victims to all sorts of misunderstanding and even gross superstitition."[75]

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[75] J. S. Haldane, M.D., LL.D., F.R.S., *Life, Mechanism and Personality* (Lectures given at the University of London, 1923), p. 151.

"When we regard the conception of the visible and tangible universe as it is represented to us by the physical sciences we find it not only stands the most searching tests of the laboratory, but that it also stands the tests of practical experience of a very wide kind. The engineer, the manufacturer, the navigator, the soldier, the lawyer, can apparently rely upon it absolutely. But *philosophy* points out that if it corresponds to absolute reality it must be consistent with the *whole* of our experience; and *first and foremost it must be consistent with our own conscious relations to it, which have, after all, been entirely left out* in the laboratory and other tests. . . . All that we immediately perceive can only be sensory disturbances of some kind, from which we infer the existence of the physical reality outside." (Hence only a sense knowledge)—*Ibid.*, pp. 68, 69. (Italics ours)

"In *science* we are *always dealing with partial and incomplete aspects of reality*—with abstractions which are not only convenient but ultimate-

One reason for such a condition is that the scientist is often so absorbed in his special problem and the particular aspect of reality which he is studying, that, on leaving the laboratory, he is apt to apply the same theory and method to the problems of the universe, forgetting that the conditions that prevailed in the laboratory tests no longer prevail.[76] Others "impatient with the slowness or imperfection of scientific description have tried to insinuate transcendental factors."[77] They become satisfied with description that can be reduced to a formula or theory. In consequence, we have the universe "explained" by a descriptive process of evolution, the laws of which are not known, and we are told, cannot be known because they too have evolved.[78] And as though our credulity had not been sufficiently taxed (for where is the evidence for the conclusion?), we are given our choice of a half dozen or more theories of descriptive evolution. Yet none of them answers the "Why?" of evolution, which certainly requires a First Cause on the grounds of common sense and metaphysics fully as much as the more traditional concept of creation. Evolution may be a perfectly sound hypothesis which gives us the "How?" of things, but it certainly is no *explanation.*

Little wonder that Professor Ralph Barton Perry says that "We suffer from a new kind of credulity. It was once complained that men are too easily

[76] *Ibid.*, p. 68.

[77] J. Arthur Thomson, *Forum* (September 1927), p. 340.

[78] H. Poincaré, *The Value of Science*, p. 132.

ly unavoidable. . . . It is the business of philosophy to point out and define these abstractions. Philosophy directs us, also to that spiritual reality, which is the only reality."—*Ibid.*, p. 152. (Italics ours)

inclined to believe what their fathers believed; that men lacked originality, independence. But there is now reason to fear that men may too easily believe what no one else has ever believed before."[79] G. Lowes Dickinson sensed the same state of mind as he summed up the present tendency in the philosophical and religious thought of this century. "In the course of the last half century a change, curious and to some minds disconcerting, appears to have come over the leaders of free-thought. They are, perhaps, not less but more sceptical than they were; but they seem also to be more believing. They question things that an earlier generation never thought of challenging; but they affirm what it would have regarded as superstitious dreams."[80] Indeed man was rarely ever more credulous. And he is so because science, and especially its popularizers, have so emphasized description as to make us forget explanation. A theory that has a certain probability in one field of science, under the limitations and conditions there placed upon it, is given the authority of a metaphysical truth and receives a universal application.[81] As J. Arthur Thomson has recently expressed this condition, "Ambitious students of science, often undisciplined in methodology and metaphysics, are apt to intrude into the domain of interpretation, or are apt to state their scientific conclusions in terms which insidiously include bad

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[79] *Present Philosophical Tendencies*, p. 20.

[80] *Hibbert Journal*, VI (1907–1908), 515–519.

[81] "The mingling of scientific and transcendental concepts . . . always means confusion of thought; and so does the failure to keep description separate from interpretation."—J. Arthur Thomson, *ibid.*, p. 340.

philosophy."[82] Professor Tennant of Cambridge in a recent work places the responsibility for this *confusion* upon these *philosophers, who "century after century have adopted a current physical theory as the last word of science, and made it a foundation of a metaphysical edifice.* Hence, in the past, the mechanical theory, then energetics; and in these days, the exploitations of relativity and space-time, *which inspire new theologies* in Gifford Lecturers and other writers."[83]

The "Relativity" of space and time may be a valuable "physical theory like the atomic theory of matter, or the electromagnetic theory of light,"[84] but that does not give it the certitude of a metaphysical truth. Nor does it give us an explanation of the universe, though it does give us greater accuracy in our physical concepts. "Relativity," "Evolution" in its various forms, and the other scientific hypotheses current today, are all no doubt *valuable as descriptive processes of the particular facts which they seek to correlate*; *but* such theories *do not give us an explanation of the universe.* Rather, popularized as they are, and given a metaphysical authority which they do not possess, they serve to blind us to the presence of ultimate realities as has been pointed out by R. A. Millikan, J. Arthur Thomson, J. S. Haldane, F. R. Tennant and others.[85] They make us sceptical and

[82] *Ibid.*, p. 342. Also cf. J. S. Haldane, *Life, Mechanism and Personality*, pp. 151, 152.

[83] F. R. Tennant, *The Soul and Its Faculties* (1928), I, 289. (Italics ours)

[84] A. S. Eddington, *Mind* (October 1920), No. 116, pp. 415, 416. J. E. Turner, *Mind* (January 1922), No. 121.

[85] Professor Gilbert N. Lewis in his *Anatomy of Science* gives the true position and rôle of the scientist when he says, "The *scientist* is a *practical man* and his are practical aims. He does not seek the *ultimate*, but the *proximate*. He does not speak of the last analysis, but rather the next approximation." *Op. cit.*, p. 6. (Italics ours)

credulous because they are given us as the means by which we are supposed to see the entire universe as it is, when in reality they are applicable only to a very limited part of the same, each in its own way and for the facts with which each is primarily concerned. Hence they stultify our capacity to reason out a rational explanation of the universe in which we live. They throw good common sense to the four winds. Is it any wonder then, that faith has become a hypothesis?

2. Confusion of existence with utility.

Hypotheses are both useful and necessary for science. They are necessary because of the inability of the scientist to possess all the facts of the case and their circumstances. Hence he must make a guess, the best guess possible. And hypotheses are useful because when verified, even though only negatively, they furnish the ground work for future study. Certitude, however, is not attained via the process "it is true because it works," for the reason that the true is sometimes implied by the false, and verified theories sometimes become falsified. Thus the electron theory may be applicable to physical facts without there being such existents as electrons.[86] So, at best, the hypothesis gives us only a certain degree of probability.

Nor does Sir Henry Jones ask any more than this of faith as a hypothesis. "The domain of religious faith is practise, while hypotheses, scientific or other, are, as a rule, considered to be essentially and primarily theoretic and nothing more . . . The proof

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[86] F. R. Tennant, *ibid.*, p. 272.

is *pragmatic.* It is like the *test* of an invention, and in nowise like the arguments for or against a theory. It consists in observing 'how it works.' "[87] Professor Hocking expects no more and says practically the same thing in other words. "The use of the God idea . . . will be the chief determinant of the value level in any consciousness . . . Whatever value religion has for man will be founded, we now judge, in the religious ideas, especially, . . . the idea of God." Still even the idea of God is not so important after all, for "The world would be consistent without God; it would also be consistent with God; whichever hypothesis a man adopts will fit experience equally well, neither one, so far as accounting for visible facts is concerned, works better than the other."[88] The all-important criterion in the reality of our belief (i.e., the object of our faith), is "Negative Pragmatism, I shall call it: whose principle is, 'That which does not work is not true.' " This, Professor Hocking finds "invaluable as a guide."[89]

Such is religion or faith without metaphysics. As Professor Tennant trenchantly points out, "*A theology that would eschew connexion with metaphysics, ipso facto removes itself from possible contact with Reality* . . . It becomes an affair purely subjective . . . There is then *nothing left to differentiate reasonable religious belief from credulity and superstition, theology from pragmatic recipes for pious behaviour* . . . "[90] Indeed, it begets credulity. *It is to pass from the useful to reality.* It is as though one

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[87] *A Faith that Enquires,* p. 66.

[88] *The Meaning of God in Human Experience* (1921), pp. 136, 139, 143.

[89] *Ibid.,* Preface, p. xiii.

[90] *The Soul and Its Faculties,* I, 303. (Italics ours)

were to assert that the usefulness of a scientific hypothesis of itself proves the real existence of things corresponding to the concepts employed by the hypothesis.[91] It is as though we were to say that everyone is to have his own religion, his own beliefs, his own philosophy and his own system of truths and reality; which is as absurd as to say "To everyone his own Mathematics."[92] It is equivalent to making God's existence hinge upon His utility for me, which is as fallacious as to assert that "air begins to exist because of its utility for my lungs . . . If His existence depends upon His usefulness, then He would exist for Mr. A. who finds Him useful and would not exist for Mr. B. who believes he can get along without Him. God would then twinkle in and out of existence like a star, depending upon the individual need and utility."[93] Yet this is precisely what is done when it is said that the reality of our beliefs will depend upon either the positive pragmatic criterion of "how it works," or the negative criterion "That which does not work is not true."

The validity of such a concept of faith, then, ultimately rests upon and is verified by experience. "God can be of worth to man only in so far as he is a *Known* God."[94] "The sciences may conjecture, religion must '*know*': that is to say, it must be a matter experienced . . . This *experience* is *the final court of appeal.*"[95] And yet Sir Henry Jones goes on to admit that "an experience is no proof of its truth,"

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[91] A. E. Taylor, *Elements of Metaphysics*, p. 193.
[92] Sir Henry Jones, *A Faith that Enquires*, p. 69.
[93] Fulton Sheen, *Religion without God* (1928), p. 215.
[94] W. E. Hocking, *The Meaning of God in Human Experience*, p. 215.
[95] Sir Henry Jones, *A Faith that Enquires*, p. 64.

he even stresses the fact that individual and personal experience may be deceptive or an illusion. His remedy for this defect is to have a final appeal to the observation of its universality. Its universality will verify its truth.[96] But at all events, we are to conclude that God is an object of perception or experience.

However, to make God's existence dependent upon a hypothesis that is verified by experience is to adopt a method dependent upon psychological states. Experience is conceived as a sensation by Sir Henry Jones, Professor Hocking and others who defend this theory of faith. But "The sensations of others will be for us a world eternally closed. We have no means of verifying that the sensation I call red is the same as that which my neighbor calls red."[97] For "Any kind of experience of nature which is uniquely peculiar to myself, and therefore incapable of being got under assignable conditions by any other individual endowed with the same (i.e., identical) organs of perception, is necessarily incommunicable."[98] Hence, if there are objects in their own nature incapable of being experienced in the same way, by more than one individual, whether it be God or my own inner life, those objects cannot belong to the same physical order of science. Still the contrary is done and is appealed to in establishing the hypothesis of God. We are asked to apply the scientific method of experience to prove the hypothesis that God exists. But, if experiences are incommunicable, as they are, God cannot be tested in the "spiritual laboratory of the universe" as Sir Henry Jones would have us do,[99]

[96] *Ibid.*, p. 65.

[97] H. Poincaré, *The Value of Science*, p. 136.

[98] A. E. Taylor, *The Elements of Metaphysics*, pp. 282, 283.

[99] Sir Henry Jones, *ibid.*, p. 49.

for He is outside the realm of experience both by His nature (because He is spiritual) and by His mode of operation as well.

Even admitting experience as a criterion for testing the validity of faith as a hypothesis (which we do not do), it still fails by the defects of its own case. Sir Henry Jones himself confesses that "the data of experience are like wet clay in the hands of men." They signify little or much, according to the mind and character which moulds and makes use of them.[100] Their value, then, is something purely subjective. Man will find what he wishes to find dependent upon his affective state. God will vary from person to person precisely because no affective state is the same for two persons.[101] Hence, He will vary even from experience to experience in the same person. When a man is in a passion, one thing will seem good to him, yet he will reject this same thing when the heat of passion has left him.[102]

Now let us consider Sir Henry Jones's remedy for this situation, namely, urging that experience demands interpretation.[103] Who is to interpret experience? If hypotheses are tested in the "spiritual laboratory of the universe," what if this test is not made by the majority of men? Or, what if men have no need of God, and apparently their number is without end today? He himself admits that "the

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[100] *Ibid.*, p. 51.

[101] "Si sit dolor intensus, impeditur homo nec tunc aliquid addiscere possit: et tantum potest intendi quod nec etiam instante dolore, potest homo aliquid considerare etiam quod prius scivit."—1–2, q. 37, art. 1.

[102] "Unde secundum quod homo est in passione aliqua, videtur sibi aliquid conveniens, quod non videtur ei extra passionem existenti."—1–2, q. 9, art. 2.

[103] *Ibid.*, p. 66, 67 ff.

data of experience are like wet clay in the hands of men," so that each man will find what he wants. Either he will not find God because he has no need of Him, or he will find a God that will satisfy his own needs—be they spiritual or material.

The only validity that we have for the proof of the existence of God is that which rests upon the objectivity and universality of the truth of His existence. "What is called 'the truth of religion' or the validity of religious experience, cannot be established by the *ipse dixit* of that type of experience. If it is to be established, it must be as a reasonable inference from discursive 'knowledge' about the world, human history, the soul with its faculties and capacities; and above all, from knowledge of the interconnexions between such items of knowledge. Thence alone are derived the notions of . . . the supersensible, the supernatural, and the theistic notion of God."[104] Our approach to the existence of God, therefore, begins with experience in that all knowledge begins with experience. But the approach is made by a discursive process that rises from the visible effects, seen (or experienced) in this world, to their First Cause, God.

To make faith a hypothesis on the condition that "it works" is to make God depend on the particular

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[104] F. R. Tennant, *ibid.*, p. 325. "Deum esse, demonstratur multipliciter."—I, q. 2, art. 3. Deum esse, est demonstrabile per effectus a posteriori tantum.—I, q. 2, art. 1. Dei non est demonstratio, nisi per effectum.—I, q. 3, art. 5; I, q. 3, art. 4 ad 2.

Note: We are not disputing here concerning the validity or reality of a *true* mystical knowledge of God, as that is outside of our thesis because of the rareness of such knowledge. Even when a true mystical state is found, we must continually be on our guard against illusion. Its knowledge or content can never be contrary to reason or Revelation.

value He may have for our values. This is to subvert the relation between the end and the means. For example, if it be said that health is desirable on account of life, it follows that life is more desirable. Thus health is not desirable on account of medicine, otherwise medicine is more desirable than health. Health is the end. Medicine is the means to the end.[105] So too, God is not desirable because He is of use in our lives. He is not a means, but the end of life because He is Life. He does not exist because He is useful for our lives, but He is useful because He exists. "*His value for us is a consequence of His existence; His existence is not a consequence of value.*"[106]

To conclude: a hypothesis then, is not true because it works, or because it is useful. Such a notion of faith goes back, in origin, to Luther's depreciation and denunciation of reason, followed by the Kantian notion which denies that the speculative reason can transcend human experience and the phenomena that fall under the domain of empirical science. It would make a belief true because it "works." It overlooks the fact that "the vital result of experiment consists, not in the confirmation of belief, but in the

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[105] Taken from I, q. 87, art. 2 ad 3.

[106] Fulton Sheen, *God and Intelligence*, p. 200. Professor Hocking, in a like manner, pleads for God as the ground of all values, and this, independent of our "use" of Him. We have outgrown the days when we make the citizen great by making the government small; we shall outgrow the day when we make man great by making God small and *useful*."—*The Meaning of God in Human Experience*, p. 328.

Professor Pringle-Pattison, although he does not hold the traditional notion of God, also realizes that man's use of God does not give Him reality when he says that "Man does not make values any more than he makes reality."—*The Idea of God* (1920), p. 239.

confirmation of *doubt.*"[107] *A Hypothesis may be proved false at any time.* But is is because a belief is true that it "works," and can be verified; yet, *it is just as true though never verified.*

Truth is not made by the intellect knowing, nor by the fact that the hypothesis or postulate "works." For if every human intellect were obliterated truth would still exist because the Divine Intellect, which is Ultimate Truth, would still exist. Our intellects, then, do not make truth any more than experience. They can attain truth; they can discover it. But truth is what it is despite what we may wish it to be. God is Truth. He exists. He exists, not because He is "useful" to us, nor because He satisfies our needs; rather His "usefulness" to us, if you will, and His ability to satisfy our spiritual needs follow from His existence.

3. The "As If" is a kind of mental hypnotism.

To argue for God's existence from a consideration of values because we need them, or because they ought to be, is to put the cart before the horse. As Professor Tennant rightly observes, "*Valuations must be appreciations of the existential.*" Without God there can be no values. To say that they ought to be is to assert a corollary that follows upon God's existence; "theism must be established before we have any right to its moral corollaries."[108] Sir Henry Jones, on the contrary, argues throughout his entire volume for the notion of faith as a hypothesis, the hypothesis of God's existence—which is to be verified

[107] Macmurray in essay "Beyond Knowledge," in the symposium entitled, *Adventure: The Faith of Science and the Science of Faith* (1927).
[108] *Ibid.*, p. 304. (Italics ours)

by experience. Then in concluding his work, he tells us that his whole argument rests upon an assumption (or corollary) "That the moral life has a value which is final, unlimited and absolute."[109] In other words, *his faith as a hypothesis is an assumption based upon another assumption which itself presupposes "the moral law" and the "will of God."*[110] Or to put it another way, faith as a hypothesis (i.e., an assumption) is based upon the assumption that the moral life of man has a final value, and this assumption is, in turn, based upon "the moral law" and the "will of God"—i.e., upon God, the reality of whose existence is to be proven by faith as a hypothesis. This is not only a vicious circle, but also a decided form of mental hypnosis. If logical, Sir Henry Jones should go all the way with Hans Vaihinger, accept his *Philosophie des als ob*, and say that we should live "as if" God existed because otherwise man will fall into "practical disbelief," which "is mean egoism," making man "godless."[111]

As has been pointed out repeatedly, the reason for adopting a philosophy of life "as if" God existed, or accepting faith as a hypothesis, is founded upon

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[109] *A Faith that Enquires*, p. 270.

[110] In concluding his Gifford Lectures, *A Faith that Enquires*, Sir Henry Jones says—"I must in the first place make a confession. *Not merely are my conclusions somewhat meagre, but they are unsatisfactory in a far more serious sense.* They are *based*, from the beginning to end, *upon an assumption which I have made no attempt to justify*, and which, if false, deprives our attempt of all value. *The assumption is that the moral life has a value which is final*, unlimited and absolute. By *the moral life* I mean *the process of forming a good character;* by good character I mean a way of living, *which in all its details*, is dedicated to the service of the best, and is therefore *the fulfillment*, at one and the same time, *of the moral law and the will of God.*"—p. 270. (Italics ours)

[111] *Op. cit.*, English Translation by C. K. Ogden (1924), pp. 324, 325.

an over-accentuation of our attainment of knowledge through data that are solely impressional. For as Professor Tennant points out, "the core of science's data . . . is impressional." It "is the sole basis of scientific knowledge of Actuality."[112] God, therefore, does not fall under the physical and sensible observations of science. The scalpel, microscope, or test-tube all fail to reveal Him. By the very nature of its method and aim, God is and must remain for it, non-existent. And following Kant, man cannot prove by reason that God exists, he can have no certitude of His reality or actuality. Hence he is to live "as if" God existed because of the consequences that would otherwise follow in his moral life and social dealings with others. This we have called a kind of mental hypnosis, for I must have some reason for living "as if" God existed rather than "as if" He did not. No appeal to moral arguments will cause man to deny himself that which he wants because to do so is for the welfare of others. Moral arguments have their force only in virtue of the reality of transcendentals. The Author of moral laws must exist if they are to be observed.

Vaihinger, however, bases his whole philosophy on a "fiction." The "fiction" proceeds as if the thing existed. "It is convenient or fruitful to treat objects 'as if' they were what in fact and in logic they are not."[113] Thus, the *idea* of God, and not God, is the object of our faith. His *existence*, if you wish to call it that, *is something purely subjective:* it is a kind of mental hypnotism by which we make the imaginary real. When kept to Kantian terms, the philosophy

[112] *Ibid.*, p. 362.

[113] Ralph Barton Perry, *Philosophy of the Recent Past* (1926), p. 195.

of "as if" does not sound so bad, as it is in accord with the whole Kantian system which denies the human mind the capacity to transcend human experience, i.e., the impressional phenomena which fall within the domain of empirical science. But once it is brought down to the field of reality, letting its principles stand as they are given, it refutes itself.

If a man lives as though he had the wealth of a Crœsus, when in reality he has a business that nets him but five thousand dollars a year, he will soon be bankrupt and will end either in prison or a madhouse. So too, a philosophy of "as if" will make us morally bankrupt and our mental state will be no better than that of the man placed behind bars or in a padded cell. The "als-ob" philosophy is a philosophy in which we pull the wool over our eyes and live "as if" there really were a God. "It may eventually effect our mental attitude . . . but if God is no more than this mental attitude, then there is no God but ourselves."[114] Certainly, such a faith has no foundation in reality.

If in good common-sense it is argued that we are to live "as if" God exists, rather than "as if" He did not, our foundation must be either mental or real. And as Dr. Fulton Sheen has so forcefully put it in his *Religion without God*, "If it is only mental, then there is no reason for choosing 'as if there was a God' rather than 'as if there were not,' any more than there is for living as if there were, or as if there were no ghosts. If the foundation is real, then we are not free to live 'as if there were not'; only one alternative is possible,

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[114] Fulton Sheen, *God and Intelligence* (1925), p. 210.

just as if my hand is really burnt, I am not free to live as if it were not burnt."[115]

4. Limit to application of methods of science.

The *Zeitgeist* of every age of man's history furnishes him with an intellectual or mental "climate" which is reflected in practically all the thought of that period. The spirit of today is one of harmonizing all our ideas and principles with a succession of facts tested by instruments, of submitting all thought to the universal application of the empirical method of science. Everything that cannot be so harmonized or "verified" is to be rejected. Science has become something sacrosanct and dogmatic. The reason for such an attitude is found in the fact that scientific "ideas" work astoundingly well in the practical workings of the applied sciences. Hence, they have received a philosophical validity in the eyes of the popularizers of science and the people at large. But are we permitted to apply a mechanico-materialistic interpretation of the universe, or any other scientific interpretation, to every domain of knowledge? Is such a procedure reasonable and rational?

Science does furnish us with facts. These facts are useful and we are indebted to science for its fruits as well as for the painstaking labor with which these have been produced and accumulated. Facts, however, are only a kind of grist supplied to the mill of science and philosophy. They need not be restricted to science because science has obtained them. For no scientist of any standing would claim that science tells us *why* things happen, as its objective is only to

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[115] *Op. cit.*, p. 214; also pp. 211–215.

tell us *how* they happen. And if science be described as "systematized common sense," may we not reply, that "common sense" consists of more than unsystematized brute facts, and that it also asks for more? Yet science does not offer us a single word of explanation or illumination as to the nature of the universe or ourselves. Its "causes" are mere antecedents. It gives us a mere succession of events. That is why it must be silent not only as to *why* anything happens, but also as to the *how*, for what it really tells us is merely that if a certain group of phenomena is found here and now, another combination will follow. "Science," therefore, "is made with facts as a house is made with bricks; but an accumulation of facts is no more a science than a heap of bricks is a house."[116] Systematization is necessary. And systematization requires to be *particularized* before it defines science with any precision. But facts can be systematized and used in other ways than the way science uses them, and this without yielding to or employing its method.

Science has its limitations—limitations that are recognized by the true scientist himself. In illustration, we need but refer to its inability to touch or deal with qualities, or, to know reality, i.e., life or being. For example, a mechanical conception of the physical order and universe is ideal in abstract mechanics where its postulates are rigidly carried out as in Statics and Kinetics, but it is not so in the biological, chemical or electrical fields. Hence, the purely mechanical point of view fails to tell us what properties may be expected to result from a new combination of chemical elements. Such knowledge is obtained only by actual

[116] H. Poincaré, *La Science et l'Hypothèse*, p. 168.

experiment because the chemical combination is regularly productive of *new qualities* in the compound which could not have been predicted from a knowledge of the properties of its constituents, save by the *a posteriori* method (e.g., that two atoms of hydrogen plus one atom of oxygen would result in water). The mechanical point of view fails. And it fails because "every actual process involves the appearance of the qualitatively novel, and since all concrete *quality* is in its essence unique, no actual process can be merely mechanical."[117]

Nor can science know life or reality (i.e., *being*). Its method of *classification* is a *practical device.* It is necessary because it is impossible to 'handle' things in large numbers unless they are sorted out into groups which can be treated as if each member of the group were identically alike. But such a method ignores *individuality.* It ignores the individuating notes of each thing in the group. And although science does not ignore *life,* it fails to know it for the reason that the *principle of organization* in living things cannot be observed under the microscope. In a similar way is it limited by its failure and inability to comprehend the flux in living things. Life simply cannot be measured by physical instruments. Science may give us descriptions of chemical, electrical and biological processes, it may tell us *how* "life" behaves, it may give us its "atmosphere," but it does not give us the *why* of the process.[118]

This limitation on the part of the empirical sciences, however, is not a defect, any more than we would say

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[117] A. E. Taylor, *Elements of Metaphysics,* p. 286.

[118] B. H. Streeter, *Reality—a New Correlation between Science and Religion* (1927).

that the mathematical sciences are defective because they fail to reveal the *why* of the universe. In both instances the *why* is outside their respective realms. The scientists themselves remind us that the scope of every science is defined or restricted by certain initial assumptions. What does not fall under those assumptions must be treated by the science in question as though it were non-existent. "Thus, mathematics is in principle restricted to dealing with problems of number and quantity; whether there are realities which are in their own nature non-numerical and non-quantitative (e.g., mental state) or not, the mathematician, as mathematician, is not called upon to pronounce; if there are such realities, his science is by its initial assumptions debarred from knowing anything about them."[119] In a like manner physics, as physics, is not concerned with, and is not called upon to pronounce conclusions on, organic or intellectual life; much less is it called upon to render conclusions on the existence or the life of God.

It is therefore patent that the limitations of science are not to be confounded with defects; "and to point out those which beset scientific knowledge, is not to disparage science. Science is none the less genuine knowledge for being limited; and none the less limited for being genuine." But, "Discernment of its limitatations is essential for a true understanding of what lies within them, as well as for any reasonable surmise as to the Beyond, which its limitations may suggest. The frame of a picture may seem, to the average beholder, a limit and hindrance to wider vision: to the painter, it is the condition, and a determinant, of what he puts upon his canvas. *Neglect of Science's*

[119] A. E. Taylor, *ibid.*, p. 12.

limitations has in the past been responsible for pseudo-science and pseudo-philosophy—even pseudo-theology; for anti-intellectualism, or irrationalism, and for over-weening dogmatism."[120]

The knowledge of science, then, is only a partial knowledge. It stresses sense knowledge because "the core of science's data" is the "impressional" which "is the sole basis of scientific knowledge of Actuality. If there be any other 'first touch' with Reality than the sensory, science is *ipso facto* not only limited to what is not beyond, but also bounded by what is beyond."[121] In other words the knowledge of science is partial, it is essentially sense knowledge, and the error made by so many popularizers of science is to presume that we can have no other knowledge, and would therefore have us remain within the sense knowledge of science.

Such an attitude is one of intellectual self-anaesthetization, whereas, if rightly taken the scientific attitude could be, as it should, a stimulant that leads us on to further knowledge. But its limitations must be recognized. It must be conceived of as only a partial knowledge. And whenever it is sought, it must always be subject to the higher criticism of true philosophy, particularly in anything that approximates a universal application of its findings.

Then it may well be a stimulus that will lead us on to new and unknown fields of knowledge. Rightly ordered, in this way, it can even serve to enrich our intellectual life. If, on the contrary, it is assumed that the scientific attitude is one of universal application, it can be only a deadly anaesthetic, because the

[120] F. R. Tennant, *ibid.*, pp. 361–2. (Italics ours)
[121] F. R. Tennant, *ibid.*, p. 362.

hypothesis when applied universally begets scepticism. As Professor Thomson indicated in his Gifford Lectures, "the scientific mood, inherently sceptical, has been widely diffused; its activity has a growing fascination of its own; it easily comes to preoccupy the mind and thus tends to crowd out" not only "the æsthetic, the poetic and the religious moods" but even true philosophical interpretation.[122] We see this exemplified in Professor Roy Wood Sellars' *Religion Coming of Age.* Professor Sellars is professedly a philosopher but he is preëminently enamoured with the scientific attitude which, consciously or unconsciously, he applies to all the problems of the universe and life. Hence he attempts to take Professor Millikan, a true scientist, to task for keeping the conclusions of science within their limitations. For Professor Millikan openly concedes that knowledge of God and the interpretation of the universe do not fall within the scope of empirical science; yet, in his opinion the findings of science point to and demand a God who is the First Cause and a Personal Being.[123]

When science, or its popularizers to be exact, insist that we gain all of our knowledge via experiment or experience, they are certainly extending the domain of science beyond its limitations. They are trespassing. They either confuse or fail to distinguish between the particular knowledge which can be obtained through the method of hypothesis and that more universal which can be had when, via common sense philosophy, immediately or proximately our

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[122] J. Arthur Thomson, *The System of Animate Nature* (1920), p. 42

[123] Roy Wood Sellars, *Religion Coming of Age* (1928), pp. 212, 213. R. A. Millikan, *Evolution in Science and Religion* (1927) pp. 39, 79, 88.

conclusions can be attached to first principles. In other words, the confusion arises from a failure to distinguish between the knowledge of metaphysics or philosophy which is obtained by using the first and third degrees of abstraction,[124] and that which is had by science in applying the first and second degrees of abstraction to things that we perceive about us.[125]

Science seeks to express the various phenomena and processes of the physical, biological and psychical order in terms of formulæ. "The fewer and simpler these formulæ . . . the more completely do the experimental sciences perform the work which they have undertaken."[126] And so long as these formulæ adequately accomplish this work of calculation, it is indifferent for the experimental sciences whether the language in which they are couched represent a "reality" or not. "The 'atoms,' 'forces,' and 'ether' of our physical, the 'sensations' of our psychological formulæ, *might be purely symbolic creations of our own imagination* as the 'imaginary qualities' of mathematics, *without their reality in any way interfering with their scientific usefulness.*"[127] Hence, it is not surprising that God need not be a reality as far as the scientific hypothesis is concerned. He

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[124] Cf. footnote pp. 72-73

[125] *Ibid.*

[126] A. E. Taylor, *Elements of Metaphysics*, p. 192.

[127] A. E. Taylor, *ibid.*, p. 192. (Italics ours) Mach, an eminent scientist, confirms this assertion in saying "the atomic theory plays a part in physics similar to that of certain auxiliary concepts in mathematics . . . although we represent vibrations by the harmonic formula, the phenomena of cooling by exponentials, falls by squares of times, etc., no one will fancy that vibrations *in themselves* have anything to do with circular functions, or the motion of falling bodies with squares." *Science of Mechanics*, English Translation, p. 492.

may merely be a "Force," for all that is asked or desired of any hypothesis is that it work. And this is exactly what has been done in applying the scientific method to the existence of God in faith as a hypothesis. All that is sought is that the hypothesis "works." The "religious hypothesis" itself "like all others, is never finally proved. It is the one thing that is being done throughout creation. It is the experiment—the Great Perhaps of the Universe, on which both nature and spirit are engaged."[128] Therefore, carrying through the scientific method, a God of your imagination, or the *idea* of God will suffice—if this "works" for you.

God's existence, as far as empirical science is concerned, is neither proved nor disproved. It can know nothing about the inner nature of reality. It is limited by its own self-imposed assumptions. In limiting itself to sensible phenomena and the impressional it has set up its own limitations. It can give us descriptions which are adequate for its own purposes. It calculates and formulates formulæ that give an incomplete expression of various processes, but all that it pictures for us is a mere succession of events. And it fails to arrive at causality because this is a conclusion drawn from the principle of identity. For causality is intelligible only in function of *being* or reality, with which science is not concerned. And because science is not concerned with *being*, it cannot pass judgment upon the existence or non-existence of Him who is *Being*, although its "laws," and the "order" found in the universe all point to a "Law," a "Law-Giver" and an Unknown

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[128] Sir Henry Jones, *A Faith that Enquires*, p. 79.

Reality.[129] And as Doctor Haldane has said, it is the scientist rather than the philosopher who mistakes ideal constructs for truth.[130]

Because science is bounded by its own self-imposed limitations, in consequence of its method and object, it stands in need of metaphysics.[131] For its hypotheses never give more than probability, their truth is never fully known.[132] They are always tested and never proven.[133] They never give us ontological truth which alone gives man that certitude which he naturally desires and which he possesses in so many of his common-sense metaphysical conclusions. The work of metaphysics or true philosophy *begins* where that of the experimental sciences leave off.[134] "Whether hypotheses are adequate as implements for the calculation of natural processes is a question which Philosophy, . . . leaves entirely to the special (i.e., empirical) sciences, whether they can claim to be more than useful formulæ for calculation, i.e., whether they can give knowledge of ultimate Reality, is a problem which can only be dealt with by the science which

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[129] "Through Science's discovery of laws mankind began to know a God not of caprice and whim, such as were all the gods of the ancient world, but a God who works through law."—R. A. Millikan, *Evolution in Science and Religion* (1927), p. 39; also p. 79.

"The God of science is the Spirit of rational order, and of orderly development."—p. 88.

[130] "The materialists [those limiting themselves to sense knowledge] rather than the philosophers are those who mistake ideal constructs for truth."—J. S. Haldane, *Mechanism, Life and Personality*, pp. 148–9.

[131] *Ibid.*, pp. 151–2.

[132] H. Poincaré, *Value of Science.*

[133] Sir Henry Jones, *A Faith that Enquires*, p. 77; H. Poincaré, *Value of Science.*

[134] "The work of the philosophy of Nature and Mind only begins where that of experimental sciences leaves off."—A. E. Taylor, *Elements of Metaphysics*, p. 193.

systematically analyses the meaning of reality (being), i.e., by Metaphysics." Science and metaphysics each have their respective objects and fields. The difference arises from their formal objects, the former having as its goal the description of facts, the latter their interpretation. And when we once cease to be content with such a description of facts as will subserve the purpose of calculation, and ask for description of the facts as they actually are, this of itself becomes metaphysical interpretation.[135]

Summing up, we see that "science is frankly empirical in method and aim; it seeks to discover the laws of concrete being, and to formulate these in the simplest terms." It deals either with the immediate data of experience or with that which is verifiably derived therefrom. "The 'scientific universe of discourse' does not include transcendental concepts; its aim does not include attempting to give ultimate explanations."[136] These belong to the realm of true philosophy or metaphysics which begins where science leaves off. Philosophy further evaluates the abstractions of empirical science,[137] systematizes the partial knowledge of the particular sciences,[138] and "directs us . . . to that spiritual reality which is the only reality."[139]

All this is conceded by many of the acknowledged scientific authorities of today. Science, indeed, has

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[135] A. E. Taylor, *ibid.*, p. 193.

[136] J. Arthur Thomson, *The System of Animate Nature* (1920), pp. 39, 40.

[137] J. S. Haldane, *Mechanism, Life and Personality* (1923), p. 152. A. E. Taylor, *ibid.*, p. 192.

[138] R. A. Millikan, *Evolution in Science and Religion* (1927), pp. 83, 86 90.

[139] J. S. Haldane, *ibid.*, p. 152.

a work to do, but it must not take itself "as seriously as the nineteenth century physicists took themselves."[140] It is not sufficient unto itself. It has need of metaphysics. And above all must science and its popularizers understand the danger that results from a failure to realize the limitations of the "tools" with which the scientific method carries on its work.[141] A failure to do so can result only in adopting a procedure which would be considered absurd and foolhardy in any other walk of life. As Professor Taylor has so succinctly pointed out: "No one would think of regarding the verdict of an archeologist or a chemist on a moot point of law as deriving any particular value from the eminence of the archeologist or the chemist in his own subject; no one would attach any weight to a Lord Chancellor's opinion about the genuineness of an alleged Rembrandt, or a disputed fragment of Simonides, because the opinion was that of the best Lord Chancellor the country ever possessed."[142] And so although the physiologist, as a scientist, may be able to tell us all about the human brain as an organism, yet with all his observations and experiments, he, no more than the physicist, can apply his tests to the fundamental truths of religion, or to the truths which are the object of faith, than he can examine an abstract idea under his microscope. His science is valid in its own field but it is only one special kind of knowledge, one infinitesimally small part of knowledge. His information "is true and valuable as far as it goes, but it does

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[140] R. A. Millikan, *ibid.*, p. 28.

[141] J. S. Haldane, *ibid.*, p. 151; also p. 140.

[142] "The Vindication of Religion," an essay in *Essays Catholic and Critical*, edited by E. G. Selwyn (1926), pp. 40, 41.

not go far enough."[143] Science will always be an extremely useful, practical "tool." We may even say an indispensable one; one that gives us an intensely interesting interpretation of certain aspects of the universe, but it should not and cannot rightly hold the present high station which its popularizers give it as the sole interpretation of the whole of it.

[143] *Ibid.*, p. 43.

CHAPTER III

EVALUATION OF FAITH AS THE WILL OR THE WISH TO BELIEVE

The confessed impotence of agnostic naturalism, which the Scientific Intellectualism of the last century brought on as a result of an exaggerated glorification of the power of natural reason, led inevitably to a return of the romantic spirit which glorifies the rôle of the will in human life and in the religion of man. The hypotheses of pure science, when carried over into the field of religion, prepared the way for the religious philosophy still current today and exemplified by William James. Like so many other philosophical systems of the past, it was incomplete, it was filled with contradictions, it did not meet the realities of life, and it could not be completely demonstrated. Superseding a philosophy of scientific abstractions and hypotheses, though it pulsed with life, it was itself only another hypothesis. "Of course James has not deceived himself in this respect. He did not profess to 'demonstrate' the truth of his conception of the world. Every man possesses, he believed, some fundamental attitude towards the universe and life, some individual way of feeling and of reacting, which is his philosophy."[1] As he himself states in his Preface to Paulsen's *Introduction to Philosophy*, we are faced with the facts of Nature. "Whether facts that exist

[1] Th. Flournoy, *The Philosophy of William James* (1917), p. 166.

have significance or do not have it is something that cannot be proved or disproved by argument. If one *feels* the significance, it is there; but it can only be affirmed or denied dogmatically, as it were; so that religion and atheism stand opposite each other not as theories, but rather as expressions of the will, and differing practical attitudes of men toward life." Hence, "the belief that this attitude of faith may be one's most important vital function is also an expression of the voluntary life, and not a theory that can be scientifically refuted."[2] The purpose of his philosophy was to justify the faith of the man who preferred a religious attitude towards the universe, and to point out the "risk" that is taken by one who persists in a non-religious view of the facts of life.

In his attack upon reason, James did not attack the reason of the Scholastics, as he was prejudiced against that.[3] Nor did he attack the reason of Descartes, for that had degenerated in his successors. What he did attack was the reason of the Positivists—a Scientific Intellectualism[4]—because of its "irreligious agnosticism" which refused to believe anything without such proof as it deemed to be scientific.[5] The protest was registered against the assumptions of the scientists who attempted to limit our knowledge to abstract truths which made philosophy discontinuous with life. Its fruits were submitted to criticism, and revealed

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[2] *Op. cit.*, p. v.

[3] "The besetting sin of philosophers has always been the absolutism of their intellects. We find an assumption that was the soul of Scholasticism, the assumption namely that anything that is necessary in the way of belief must be susceptible of articulate proof, as rampant as it ever was, in the irreligious agnosticism of today."—*Ibid.*, p. vi.

[4] Fulton Sheen, *God and Intelligence* (New York, 1925), p. 68.

[5] James in Preface to Paulsen, *Introduction to Philosophy*, p. vi.

the abstraction of its concepts and its theories, which do not make us gather the reality of the living richness of the facts, but only their skeleton.[6]

"The mind of man, which could not rest content with a simple transference of results attained by the methods of the natural sciences to the realm of philosophy, and was reluctant to stay its steps on the threshold of the Unknowable, sought within itself other and deeper activities which should throw open the portals of the mystery. Art, moral life and religious belief were called upon to fill the void left by scientific knowledge; and the reaction went so far as to extend to the human intellect itself as a whole, a distrust which should have been confined to *scientific naturalism and its claims to be able to comprehend the infinite riches of mind and nature within a few mechanical formulas.*"[7]

The reaction, then, was based upon a deep seated desire to save the eternal verities which were crumb-

[6] Professor Antonio Aliotto, *Science, Religion and Reality* (1928), p. 166. "It was found that those theories are also at bottom a human construction, variable and relative, and that they suppose an act of faith at their roots. In this way the distinction between pure reason and practical reason which Kant had made was shown to be superficial because the activity of the scientists is itself directed to a practical end; that is, to that of dominating nature, of finding suitable schemes which may serve to guide us through the complexity of the phenomena of experience. Thus religion and science were reconciled in their common origin, which is always an act of free will, a free adhesion of the spirit; and dualism was superseded."—*Ibid.*

An excellent account of the abstract nature of the scientific method is found in the same work under the title, "The Domain of Physical Science" by Arthur S. Eddington. Also cf. his *The Nature of the Physical World* (1929), chapter xii, "Pointer Readings," pp. 247 ff.

This question has also been treated at length in the previous chapter of this work.

[7] Professor Aliotta, *The Idealistic Reaction against Science*, translated into English by Agnes McCaskill, Introduction, p. xv. (Italics ours)

ling under the attacks of a Scientific Intellectualism even as they had been previously threatened under the attacks of Hume. The pragmatists made the same mistake that Kant had made before them. Instead of examining the value of the attack made on them they took flight, hiding themselves in a new concept of faith and knowledge. Like Kant, James with the aid of Pierce, Renouvier, Mill and Bergson, formulated his Critique of Pure Reason in a twofold denial: first, a denial of Absolute Truth, "the reality of which is always on the road towards being made, a ceaseless creation, in which we collaborate with our energetic forces";[8] second, a denial of the power of the intellect to know transcendentals. In his Critique of Practical Reason he first gave us the will-to-believe which was to give primacy to the will and thus compensate for the loss of the intellect. In the second place the will was endowed with a creative power in relation to the object of belief—and in virtue of which the will-to-believe was to enable us to reach God.

Before attempting to give a criticism and appreciation of James's Critique of Practical Reason it will be well to point out the misunderstanding which he had of true intellectual abstraction and the act of intelligence as set forth in the moderate realism of Scholastic Philosophy, which misunderstanding is at the very background of the will-to-believe.

I. ABSTRACTION AND THE ACT OF INTELLIGENCE IN MODERATE REALISM.

A brief exposition of moderate realism is necessary since the essence of any philosophy is to be found in its theory of knowledge and its theory of being.

[8] Professor Aliotta, *Science, Religion and Reality*, p. 167.

Moderate realism accepts both the existence of the external world and the facts of consciousness as self-evident and irreducible. Real beings have existence outside of us. The thing known exists independently of our knowing mind. The mind or intellect does not produce the object of its knowledge, nor does the knowledge of a thing modify the thing known, except externally, inasmuch as it is brought into a relationship with a knowing mind.

Our first knowledge of things is obtained through the senses. Then the intellect divests the realities offered by sense-perception of their individualizing and particular features, and seizes the essence and intelligibility of the thing. But that which the intellect first knows is reality. What, then, is reality? More precisely, what was James's *concept* of reality?

1. James's concept of reality.

In despair of discovering an answer to this question in any philosophy of the past, James "finally found" himself "compelled to *give up the logic*, fairly, squarely, and irrevocably. It has an imperishable use in human life, but that use is not to make us theoretically acquainted with the essential nature of reality . . . Reality, life, experience, concreteness, immediacy, use what word you will, exceeds our logic, overflows and surrounds it. . . . And if there be any higher sort of reality—the 'absolute', for example—that sort . . . is still less amenable to ordinary logic; it transcends logic and is therefore still less rational in the intellectualistic sense."[9]

This "emancipation" from logic was brought about by Professor James's reading the works of Professor

[9] *A Pluralistic Universe* (1909), pp. 212, 213.

Henri Bergson as he openly confesses in *A Pluralistic Universe.*[10] It is to the point to note that he deems Bergson's essential contribution to philosophy to be "his criticism of intellectualism . . . which he has killed definitively and without hope of recovery," [11] an intellectualism, which he had found inadequate because it "taught that what a thing really is, is told us by its *definition.*"[12] But life and reality are more than such definitions and abstractions. Life is a continuous stream. The introduction of abstract concepts makes for artificial and unreal divisions. "We live forward, we understand backward . . . and to understand life by concepts is to arrest its movement, cutting it up into bits as if with scissors . . . concepts, being so many views taken after the fact, are retrospective and post mortem."[13] There is only one

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[10] "I have now to confess . . . that I should not now be emancipated (i.e., from logic) . . . if I had not been influenced by a comparatively young and very original French writer, Professor Henri Bergson. Reading his works is what has made me bold. If I had not read Bergson, I should probably still be . . . trying to discover some mode of conceiving the behaviour of reality which should leave no discrepancy between it and the accepted laws of identity. It is certain, at any rate, that without the confidence which being able to lean on Bergson's authority gives me I should never have ventured to urge these particular views of mine upon this ultra-critical audience."—*Ibid.*, pp. 214, 215.

[11] *Ibid.*, p. 215.

[12] "Intellectualism in the vicious sense began when Socrates and Plato taught that what a thing really is, is told us by its *definition.* Ever since we have been taught that reality consists of essences, not of appearances, and that the essences are known whenever we know their definitions. So first we identify the thing with a concept and then we identify the concept with a definition, and only then, inasmuch as the thing *is* whatever the definition expresses, are we sure of apprehending the real essence of it or the full truth about it."—*Ibid.*, p. 218.

[13] *Ibid.*, p. 244. "Instead of being interpreters of reality, concepts negate the inwardness of reality."—*Ibid.*, p. 246.

smooth, unbroken transition "as the essence of life is its continuously changing character."[14]

And it is essentially because the concept is "naturally unsuited for life"—because the human intellect cannot grasp and know reality—that the beliefs of today may be true for today, if they carry us along the stream. Tomorrow they are likely to be false and will have to be replaced by new beliefs to meet new situations. This is why all our thinking consists of convenient fictions, imaginary congealings of the stream of reality which flows on in spite of all our fictions. *Reality can be lived but it cannot be conceived in thought.* To use an analogy of Bertrand Russell, it is like an impulse and movement towards a goal which, like the rainbow, recedes as we advance, so that every place is different when we reach it from what it appeared at a distance.

The rejection of intellectualism by the philosophers of the will-to-believe was the direct consequence of their misconception of the nature of the concept in our intellectual life. If our concepts are only

[14] *Ibid.*, p. 246. ". . . but our concepts are all discontinuous and fixed, and the only mode of making them coincide with life is by arbitrarily supposing positions of arrest therein . . . you can no more dip up the substance of reality with them (concepts) than you can dip up water with a net, however finely meshed."—*Ibid.*, p. 253.

The above criticism of the lifeless concepts and abstractions with which science deals, and which James had long objected to as being a true expression of reality, was essentially Bergson's contribution to the former's philosophy. Bergson had found the concept "naturally unsuited for life" for three reasons:

1. It substitutes a symbol for reality.
2. It solidifies movement.
3. It breaks up what is continuous and successive.

Cf. Henri Bergson, *L'Évolution Créatrice*, 21st edition, p. 179. For a fair exposition, and an erudite criticism of Bergson's philosophy in the light of Scholastic Philosophy, cf. Sheen, *God and Intelligence.*

distorted, lifeless, "discontinuous" and "fixed" images of reality; if they only cut reality "up into bits as if with a scissors" giving us so "many views taken after the fact"; if they are truly "retrospective and post mortem"—then they must go by the board, and intellectualism must go overboard with this useless cargo. Some new way must be found to enable us to attain to reality and truth. A new solution was given by James. His *Principles of Psychology* indicated the part played by selection in sensation and unconscious thought.[15] *The Will to Believe* develops the idea of the purposefulness of thought, the legitimacy of making demands on our environment, and the necessarily active nature of creative belief. In *Pragmatism* he makes use of these same ideas to formulate a new theory of the nature of truth. The solution of James, as to how we attain to reality, will be examined later. At present we wish to point out the confusion which existed in his mind concerning the relation of the intellect, that is of the act of intelligence, to things.

This confusion followed logically from making intellect and reason synonymous terms, when in fact they are two different actions of one and the same faculty. *To understand*, which is *an act of the intellect, is simply to apprehend truth:* and *to reason is to advance from one thing understood to a truth hitherto unknown.* The intellect sees things, grasps reality, without mental discussion. It knows an intelligible object as

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[15] "While the idea of the creative activity of consciousness is dominant in this work, one also finds suggestions as to human dependence in James's description of the fundamental desire for recognition from the Absolute Mind,' the 'Great Companion.' "—J. S. Bixler, *Religion in the Philosophy of William James* (Boston, 1926), p. 11.

the eye knows a sensible object.[16] Hence *what is primarily understood* is not the idea but the object, of which the idea is a likeness.[17] The intimate and

[16] St. Thomas points out that reason is to be compared to intellect as movement to rest, or acquisition to possession, because to reason is to be moving toward truth, while to understand is to possess truth. ("*Intelligere* enim est simpliciter veritatem intelligibilem apprehendere; *ratiocinari* autem est procedere de uno intellectu ad aliud, ad veritatem intelligibilem cognoscendum . . . Patet ergo, quod ratiocinari comparatur ad intelligere, sicut moveri ad quiescere, vel acquirere ad habere; quorum est perfecti, aliud autem imperfecti . . . per eamdem potentiam intelligimus, et ratiocinamur. Et sic patet, quod in homine eadem potentia est ratio, et intellectus."—I, q. 79, art. 8 c.)

[17] We know things before knowing the ideas of things. ("Et ideo dicendum est, quod species intelligibilis se habet ad intellectum, ut quo intelligit intellectus . . . Et sic species intellecta secundario est id quod intelligitur; sed id quod intelligitur primo, est res, cujus species intelligibilis est similitudo."—I, q. 85, art. 2 c; *De Veritate*, q. 5, art. 1 c; I, q. 76, art. 2 ad 4.)

For example, when I see an oak tree of determinable circumference, height, rough bark, green foliage, etc., though my senses immediately take in all of its actual properties, which make it this particular tree in space and time, at the same time my intellect understands all that is intelligible in this tree. It knows this tree, its leaves, bark, life and being before it knows the ideas of tree, leaves, bark, life and being.

Thus the intellect can assimilate, and is "in potentiality to all things—through the senses, to all things sensible—through the intellect, to all things intelligible."—I, q. 84, art. 2 ad 2. The instant that my intellect enters into contact with reality—as of this oak tree—it reacts upon that reality through the "raw material" furnished by the senses; that reality becomes the food, as it were, of the intellect, which assimilates it to itself by divesting it of all individual and particular conditions. We do not know a tree or stone until that tree or stone enters the intellect spiritually,—that is, in an immaterial way. Material things receive a new existence in being thus assimilated by the intellect. ("De ratione autem hujus naturæ est, quod in aliquo individuo existat, quod non est absque materia corporali; sicut de ratione naturæ lapidis est, quod sit in hoc lapide, et de ratione naturæ equi est, quod sit in hoc equo, et sic de aliis; unde natura lapidis, vel cujuscumque materialis rei cognosci non potest complete, et vere, nisi secundum quod cognoscitur ut in particulari existens: particulare autem apprehendimus per sensum et imaginationem."—I, q. 84, art. 7 c; art, 2 c.)

This assimilation by "the abstracting intellect might very inadequate-

essential nature of things disclosed is the proper object of the human intellect. These natures are retained by the intellect by means of ideas. And reason, that is the intellect by a reasoning process, rises from natures of visible things to a certain knowledge of things invisible and spiritual.[18] That is why God is not the first object of our knowledge; we know Him through His creatures.[19]

Since "the *idea is* that which is *understood secondarily*; but *that which is understood primarily is the*

[18] "Intellectus autem humani, qui est conjunctus corpori, proprium objectum est quidditas, sive natura in materia corporali existens; et per hujusmodi naturas visibilium rerum, etiam in invisibilium rerum aliqualem cognitionem ascendit."—I, q. 84, art. 7 c.

[19] I, q. 88, art. 3 c. "The invisible things of God are clearly seen, being understood by the things that are made."—Rom. i, 20.

When we say that the intellect can know truths other than those directly apprehended, as transcendentals, these are known only mediately and indirectly; whereas in truths known immediately, the knowledge is furnished directly by the object itself. Thus transcendental truths are known by way of negation or by way of analogy, that is, proceeding from a knowledge distinct from the truth arrived at. An example of knowledge obtained by way of *negation* is the notion of a spiritual substance, which is a negative idea, obtained by taking away the notion of matter perceived in a material substance. An illustration of knowledge obtained by way of *analogy* is our idea of God. We can prove that God exists, that He is Being, that He is Good, and that He is Truth. But when we attribute being, good and truth to God, they are attributed to Him in proportion to His mode of being. Being is more perfect in the plant than in a stone, it is more perfect in an animal than in a plant, and more perfect in man than in an animal. Here we have an ascending scale of being, each more perfect than the other. God being infinitely perfect, He is Good according to this manner of His being. In a similar way, all other attributes are predicated of Him in the highest degree, and in an infinite degree, in accordance with His manner of being. "Omnia attributa, analogice dicuntur de Deo et creaturis." 1, d. 19, q. 5, art. 2, ad 11; *Opus* 3, 27 c.

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ly be compared to an X-ray, which discloses the inner constitution of a thing which is denied to mere sense vision."—Fulton J. Sheen, *Religion without God*, p. 200.

object, of which the idea is a likeness,"[20]—what is the actual relation between the intellect and the thing known?

2. The relation of the intellect to reality.

More specifically, what is the rôle of the idea? Is the idea *that which* I see, or that *by which* I see? If our ideas are *that which* we see or know, then that which we know is only a picture or image of the real, and we might all well be pragmatists in sustaining James in his objection against the intellectual concept of reality, because that which we see and know would not be the real but only a product of our mind.

This recalls Kant's notion of the idea which brought about a Copernican revolution in the realm of epistemology, and ultimately in philosophy and theology. Copernicus imagined the spectator moving and the stars at rest. Kant tried the experiment in metaphysics by supposing that when we apprehend an object, it is the object that conforms to our ideas, and not our ideas that conform to the object.[21] James carried the revolution even further by contending that "the truth of an idea is not a . . . property inherent in it. . . . Its verity *is* its veri*fication*."[22]

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[20] I, q. 85, art. 2 c.

[21] Tracing out the origin of the Kantian revolution, Professor Thilly goes on to say, "Kant believed a new light had flashed on him. Just as Copernicus imagines the spectator moving and the stars at rest, so Kant tries the experiment in metaphysics, of presupposing that, in the perceiving of objects, it is the objects that conform to the perception, and not the perception that conforms to the objects. If experience is dependent on our minds, and something already organized by the mind, according to its laws, then we have an *a priori* knowledge of what we experience."—"Kant's Copernican Revolution" in *Immanuel Kant*, p. 204 ff.

[22] *The Meaning of Truth* (1910), Preface, p. vi.

However, our ideas are not true because of a 'psychic addition,' because we put them into nature, as Kant did. Neither are they true because of *our* "*verification.*" Our ideas are true because of the identity of nature between the thing presented to our mind and that same nature as abstracted by the intellect.[23] Truth exists in things. We discover truth in things by an act of simple apprehension. Our ideas are true because the intellect grasps the intelligibility, the essential nature of things or of their constitutive elements. Having obtained an idea of what an oak tree actually is, when I am confronted with several trees, I immediately know another oak tree when I see it.

A true theory of knowledge must treat knowing of all kinds as an adventure of discovery. We discover the truth in things. It is not a process of "creating"—whether as Kant did, by having our minds put something into nature—or as James, who made "truth" that which "*happens* to an idea," so that the idea "*becomes* true, is made true by events."[24]

The answer to James's difficulty lies in this, that the idea is an abstractive intuition of reality, it is not *that which* we see but that *by which* we see and know things. The idea is only the indirect object of the knowledge of the intellect. The thing, this tree for example,

[23] "Veritas est adæquatio vel conformitas rei et intellectus." "Denominantur autem res veræ . . . a veritate quæ est in ipsa re (quæ nihil est aliud quam entitas intellectui adæquata, vel intellectum sibi adæquans) sicut a forma inhærente; sicut cibus denominatur sanus a qualitate sua, a qua sanus dicitur."—*De Veritate*, q. 1, art. 4.

[24] James, *ibid.*, p. vi. ". . . since the truth or falsity of our ideas is known by their ability or lack of ability to help us, it is accurate to say that truth itself is being built up as a body of ideas which prove themselves by their working."—J. S. Bixler, *Religion in the Philosophy of William James*, p. 94.

is first known, then by another act, a reflex one, the intellect attains the idea of a tree. The *idea*, as such, is a universal.[25] Thus the idea of tree is applicable to all trees, whatever the species, wherever they are found. But the *ratio* or essence of the idea tree is not a production of the mind. It is the fruit of a contact with sensible reality.[26] Instead of saying that abstraction is "a cutting up process, it is true rather to say that the sense and the sensible images are responsible for breaking up reality" as they only apprehend the individual and the particular. "The modern philosophers, therefore, in rejecting abstraction for having cut up the world, should rather have rejected the senses."[27]

The criticism urged next is that the knowledge of the intellect is imperfect. "It gives only the general, not the particular. It knows the rose in its universal elements, but not its color, size, environment and particular beauty. All this is quite true. The intellect does not see the particular. *But our senses do.* That is the purpose of the senses. And the intellect, by reverting to phantasms and by reflection, can turn back upon the individuals and apply the universal idea to them. Why criticize the intellect for a function which is supplied by that which is its *necessary accompaniment* in our present stage of existence, namely, the senses? Such a criticism of the intellect is equiva-

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[25] I, q. 85, art. 1 c; 1–2, q. 5, art. 1 ad 1.

[26] *De Potentia*, q. 1, art. 1 ad 10.

[27] Sheen, *God and Intelligence*, pp. 114, 115. "If we had no senses, and if there were no matter, we would have no such problem as the multiplicity of the nature indicated by the universals. We would see all the possible individual realizations in the idea itself, as does the angel. Our knowledge would then be much higher than it is now."—*Ibid.*, p. 115.

lent to forswearing the use of knives because we cannot sew with them. We have a needle for sewing and a knife for cutting, and one does not exclude the other."[28]

Furthermore, although the intellect does not seize the particular directly, but indirectly, still it has a higher knowledge of the thing than that of pure sense-perception.[29] "For the sensible image in sense is the likeness of only one individual thing, and can give the knowledge of only one individual. But the intelligible species (idea) of our intellect is the likeness of the things as regards its specific nature, which is participable by infinite particulars; hence our intellect by the intelligible species (idea) of man in a certain way knows infinite men; not however as distinguished from each other, but as communicating in the nature of the species; and the reason is because the intelligible species of our intellect is the likeness of man, not as to the individual principles, but as to the principles of the species."[30] We may even say in a restricted sense that "as our intellect is infinite in power, so does it know the infinite. For its power is indeed infinite, inasmuch as it is not terminated by corporeal matter."[31]

Moreover, as the intellect grasps "being,"[32] it

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[28] *Ibid.*, p. 115.

[29] "Particulare autem apprehendimus per sensum et imaginationem." —I, q. 84, art. 7 c.

"Contingentia prout sunt contingentia cognoscuntur directe quidem a sensu, indirecte autem ab intellectu."—I, q. 86, art. 3 c.

[30] I, q. 14, art. 12 c.

[31] I, q. 86, art. 2 ad 4.

[32] The first thing which the intellect knows in an object is "being." "Illud autem quod primo intellectus concipit quasi notissimum, et in quo omnes conceptiones resolvit, est ens . . . Unde oportet quod omnes aliæ conceptiones intellectus accipiantur ex additione ad ens."—*De Veritate*, q. 1, art. 1 c. "Ens est primum, quod cadit in apprehensione

can know reality though it is involved in change and evolution, because all "being" is determined in some particular nature; and each "being," in its process of becoming or dissolution, is true to the inclinations peculiar to that nature. Chemical bodies are in a constant flux; living organisms are always changing; the stellar universe is subject to both change and motion. Still the intellect is able to know reality even though it is continually being drawn into becoming. It perceives that when an acorn springs up into an oak tree that the acorn must in the first place possess the *germs* of its future determination, just as the child who is destined to become a Michael Angelo already possesses that *potentiality*, whereas another youngster deprived of this potentiality never could be a sculptor or artist. The point is that each thing in its various changes is following certain definite inclinations which are characteristic properties of its nature. This is why two molecules of hydrogen plus one molecule of oxygen, when united, will change into water, but they will not make sulphuric acid. An acorn will spring up into an oak tree, but a pebble, however much it may be shaped like and seem like an acorn, will not do so.

To sum up, the intellectualism of St. Thomas gives a solution to the problem of our knowledge of reality. It gives us a solution "which contemporary philosophy is coming more and more to busy itself with."[33] We

[33] Prof. A. E. Taylor, "St. Thomas as a Philosopher," in *St. Thomas Aquinas*, Papers read at the celebrations of the sixth centenary of the Canonization of Saint Thomas Aquinas, held at Manchester, 1924,

simpliciter."—I, q. 94, art. 2 c. "Ens namque est objectum intellectus primum; cum nihil sciri possit nisi secundum quod est ens actu."—*Opusculum* xxxix, cap. 1.

can know reality because the intellect knows sensible things immediately. Truth is established on a firm foundation. Truth is discovered in things by the intellect. And as "truth consists in saying that a being is when it is, or that it is not when it is not,"[34] it is not a product of the will or of pragmatic efficiency. The intellect grasps only part of reality, but by reason and analogy it can rise to a knowledge of the supersensible as the human soul and God.

The intellectualism with which James and his contemporaries were so dissatisfied was founded upon the physical sciences which might be likened to a creaking windmill that goes round and round, grinding out a grist of observations. As an eminent scientist, Eddington, has put it, if "only pointer readings or their equivalents are put into the machine of scientific calculation, how can we grind out anything but pointer readings?"[35] All that the sciences deal with are

[34] *Perihermeneias*, I, 3.

[35] "One of the characteristics of physics is that it is an exact science, and I have generally identified the domain of physics with the domain of exact science. . . ." As such it is concerned with physical abstractions or "pointer readings" rather than with reality as a complete whole.

"Let us then examine the kind of knowledge which is handled by exact science. If we search the examination papers in physics and natural philosophy for the more intelligible questions we may come across one beginning something like this: 'An elephant slides down a grassy hillside. . . .' The experienced candidate knows that he need not pay much attention to this; it is only put in to give an impression of

p. 59. "It is a striking sign of the times that contemporary philosophy is coming more and more to busy itself with precisely the problems which confront us in the Thomist epistemology and psychology of knowledge. The tendency is certainly spontaneous, since most of those who exhibit it in a very marked degree are pretty obviously quite unacquainted with all mediæval philosophy. Yet it is undeniable that something like a return to the mental outlook of the thirteenth century is being forced upon us. . . ."—*Ibid.*, p. 59.

sensible phenomena. Reality, the inner nature of things, is left out of the reckoning.[36] Since physical abstractions are dealt with entirely, since the results are in terms of approximation, scepticism naturally followed in relation to all kinds of knowledge. The reaction on the part of men like James, who wished to save religion, resulted in making the will supreme in our knowledge of reality, of God, and of the eternal truths.

Our intellect has its limitations, but they are not of the nature of the intellectualism and abstractions

[36] *Ibid.*, p. 257.

realism. He reads on: 'The mass of the elephant is two tons.' Now we are getting down to business; the elephant fades out of the problem and a mass of two tons takes its place. What exactly is this two tons, the real subject-matter of the problem? It refers to some property or condition which we vaguely describe as 'ponderosity' occurring in a particular region of the external world. But we shall not get much further that way; the nature of the external world is inscrutable, and we shall only plunge into a quagmire of indescribables. Never mind what two tons *refers* to; what *is* it? How has it actually entered in so definite a way into our experience? Two tons *is* the reading of the pointer when the elephant was placed on a weighing-machine. Let us pass on. 'The slope of the hill is 60°.' Now the hillside fades out of the problem and an angle of 60° takes its place. What is 60°? There is no need to struggle with mystical conceptions of direction; 60° *is* the reading of a plumb-line against the divisions of a protractor. Similarly for the other data of the problem. The softly yielding turf on which the elephant slid is replaced by a coefficient of friction, which though perhaps not directly a pointer reading is of kindred nature. No doubt there are more roundabout ways used in practise for determining the weights of elephants and the slopes of hills, but these are justified because it is known that they give the same results as direct pointer readings.

"And so we see that . . . by the time the serious application of exact science begins we are left with only pointer readings. If then only pointer readings are put into the machine of scientific calculation, how can we grind out anything but pointer readings? But that is just what we do grind out."—A. S. Eddington, *The Nature of the Physical World*, The Gifford Lectures for 1927 (New York, 1928), pp. 250, 251, 252.

of the physical sciences. The intellect knows only a part of reality. It cannot know the super-sensible immediately. But because it has its limitations and imperfections,[37] it does not follow that we can afford to dispense with it, neither does it give the primacy to the will in our conscious life. It is the reason that rules, or should rule, the appetitive life. Reason can well be likened to a torch which lights and directs the will in its activities. We will only that which we know as good. *Nihil volitum nisi cognitum.* With this consideration we may now pass on to an evaluation of the two positive aspects of the philosophical basis for the *Will to Believe*, namely (1) *the primacy of the will*, and (2) *the "creative power of the will."*

II. EVALUATION OF THE PRIMACY OF THE WILL IN THE PHILOSOPHY OF THE WILL-TO-BELIEVE.

Taking stock of the current attitude toward religion which will permit a man to believe what he will, we are reminded of a conversation which G. K. Chesterton once had with a publisher, who said that a certain person would succeed because "he believed in himself." When Chesterton retorted, the publisher replied, "Well, if a man is not to believe in himself what is he to believe in?" The answer is the same as that which

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[37] The imperfection of the intellect follows from its very nature, for the very reason that the intelligence of man is not that of angels. This is best exemplified in the fact that although we can and do know many things immediately by a simple act of intelligence, much of our knowledge is obtained by a reasoning process from those things that we know immediately taken together with our knowledge of first principles. "Certitudo rationis est ex intellectu; sed necessitas rationis est ex defectu intellectus."—2–2, q. 49, art. 5 ad 2. "Defectus quidam intellectus est ratiocinatio."—*C. G.*, lib. 1, c. 57.

was given at the end of a century of spiritual desolation, for religion at the opening of the present century "had no object of faith wherewith to challenge unbelief. Its God had become contemptible. He was not the Alpha and Omega of life but a mere accessory to it; ancillary to the hopes and purposes of the individual. His place in life was that of the motor attachment that a cyclist sometimes fixes on his hind wheel in order to help him to climb hills. He was 'a ready help in trouble,' and nothing more." He was "a benevolent Being upon whom we could make emergency calls; for the rest, we could do pretty well without Him." It was, however, politic to keep up a nodding acquaintance with Him so that He might be accessible when needed.[38] Many feeling that they had nothing else to believe in, perforce came to believe in themselves. *The Will to Believe* was a justification for those who preferred to believe. But can we reasonably believe in a God whom we do not know?

1. Nihil volitum nisi cognitum.[39]

Side by side with man's intellectual life, with his life of knowledge, there is in him a certain vital tendency to seek for something other than himself—something which he desires to possess—something which he

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[38] Richard Roberts, "The Doctrine of God" in *The Hibbert Journal*, XXIII (1924-1925), 23-24.

[39] "Nothing can be willed which is not foreknown." Thus the will, like the cognitive powers, is developed by experience. According to this axiom of the Scholastics, all appetition emerges out of some conscious state, which may be anything from a clear and distinct perception or representation of an object, to a mere vague feeling of want or discomfort, without any distinct representation either of the object or of the means of satisfaction.

desires because of the pleasure that it will bring him. In virtue of his intellect man has a natural affinity for being and truth; in virtue of his will he is inclined to the good.

In itself, the will is a blind and undetermined faculty. It comes into play with knowledge. It may be compared to the power of vision. In acting it depends upon the object, as the eye in seeing depends upon visible things. Thus, if the eye is closed it sees nothing of the beauty of nature. Let it be opened, and it can see the freshness of morning and the silvery mists of evening as they were seen by a Corot. Similarly, without its object—the good, which is perceived by the intellect—the will, being a blind faculty, remains inactive.

The action of the will in tending towards good becomes clearer when we consider that "there is in all things a desire for good. . . . This desire, in things devoid of knowledge, is called *natural appetite*. . . . In those which have sensitive knowledge, it is called *animal appetite*. . . . In those which understand, it is called intellectual or rational appetite, which is the *will*."[40] The good of each thing is that which is in accord with its own nature and end. To use the analogy of St. Thomas Aquinas, everything in this universe has its target or end.[41] "The target for every one of nature's projectiles varies with its nature; in like manner the propulsion which traces its curve and directs it to its targets, varies from thing to thing. Material things, for example, are directed to their end by *laws of nature*; animals are directed to

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[40] *C. G.*, lib. 2, c. 47.

[41] *De Veritate*, q. 5, art. 2.

their end by *instincts*, and man is directed to his end by *reason.*"[42]

But how does the will receive its impulse towards its end? It is evident that material things receive their impulse from nature. The stone in falling to the earth may be said to fall because of its desire for the center of gravity. The animal in its actions tends towards its end by following its instincts through sense perception. Material things, like plants and animals, follow the impulse or inclination of their respective natures. With material things, man is subject to the laws of nature, e. g., the law of gravity; with animals, he is subject to his sensitive appetite, which can, however, be made subject to reason; but above other created things on this universe, man is capable of knowing things by sense and intellect. He can assimilate the things of the outside world in a spiritual way. In this spiritual knowledge of things, man approaches "to a likeness of God, in Whom all things pre-exist."[43]

Since "forms," as they are called in Scholastic Philosophy, exist in a higher and nobler way in man

[42] "Actus voluntatis nihil aliud est, quam inclinatio quædam consequens formam intellectam; sicut appetitus naturalis est inclinatio consequens formam naturalem; inclinatio autem cujuslibet rei est in ipsa re per modum ejus; unde inclinatio naturalis est naturaliter in re naturali; inclinatio autem, quæ est appetitus sensibilis, est sensibiliter in sentiente; et similiter inclinatio intelligibilis, quæ est actus voluntatis, est intelligibiliter in intelligente, sicut in primo principio, et in proprio subjecto. . . . *voluntas in ratione est.* Quod autem intelligitur est in aliquo intelligente, consequens est, ut ab eo intelligatur. *Unde actus voluntatis intelligitur ab intellectu.* . . ."—I, q. 87, art. 4 c. "*Appetitus naturalis* est inclinatio cujuslibet rei in aliquid ex natura sua; unde naturali appetitu quælibet potentia desiderat sibi conveniens; sed *appetitus animalis* consequitur formam apprehensam. . . ."—I, q. 78, art. 1, ad 3.

[43] I, q. 80, art. 1 c.

than in things, it follows that the inclination derived from these "forms" must be more elevated than the inclination found in material and sensible things. In the latter where these "forms" are natural, the inclination is a tendency which is designated by the generic term *appetite* (appetitus); in man, where the "forms" are acquired by a spiritual assimilation, the inclination is called the *will*.[44] Good is desired, but the good desired by man is first apprehended by the intellect.[45]

In saying that we are drawn to the good, we mean that we are inclined to will some reality presented as capable of satisfying an indwelling tendency in us toward what we consider to be suitable to us. The intellect in perceiving being in the abstract, also perceives the good as such, the general good. It sees in each being the good which it contains. True, every good thing here on earth is good only under certain aspects. For were the mind to be placed in the presence of a real being possessing the plentitude of goodness, the will would be as irresistibly drawn to it as iron is drawn to a magnet.[46]

[44] "Sicut igitur formæ altiori modo existunt in habentibus cognitionem supra modum formarum naturalium: ita oportet, quod in eis sit inclinatio supra modum inclinationis naturalis, quæ dicitur *appetitus naturalis*. Et hæc superior inclinatio pertinet ad vim animæ appetitivam, per quam animal appetere potest ea, quæ apprehendit, non solum ea, ad quæ inclinatur ex forma naturali. Sic igitur necesse est ponere aliquam potentiam animæ appetitivam."—*Ibid.*

[45] "Bonum autem appetibile cujus ratio est in intellectu est objectum voluntatis."—I, q. 82, art. 3 c.

[46] Only the complete good can draw us in this way, as it alone completely satisfies the will. "Objectum autem voluntatis quæ est appetitus humanus, est universale bonum, sicut objectum intellectus est universale verum." 1–2, q. 2, art. 8. God is such a good. He is the supreme good. I, q. 6, art. 3 c; *C. G.*, lib. 1, c. 17. He is goodness essentially. I, q. 3, art. 2 c.

Since every created good is limited, since each is good only from certain points of view, we must choose some one good in preference to others. Does the intellect merely offer the will these various goods, or does it go further and trace out a path for the will by indicating that which is to be preferred?

2. Primacy of the Will is Motivation without Motive.

In all of our actions we seek happiness. Happiness is sought every time we make a decision. We may freely decide to continue our sleep in the morning although we know that it is time to arise. Again, we may be deep in work on a bright sunny afternoon in fall when the thought comes to us that we have had enough office work for one day as it would be a fine afternoon for golf. About the same time, the telephone rings. The call is from a prospective client who must see us immediately. The business is urgent. To give up the proposed game of golf and meet the new client may well mean several hundred dollars. We are confronted with two alternatives—more work, or a game of golf. Brought face to face with two attractive possibilities, we may deliberately choose to quit work, refuse to meet the new client, and make for the golf course. In countless other ways are we daily called upon to make decisions because we have a free-will.

When we make a choice, we exercise our free-will. "We say we have free-will because we can take one thing while refusing another; and this is to choose. . . . Now two things concur in choice: one on the part of the cognitive power, the other on the part of the appetitive power. On the part of the cognitive power, counsel is required, by which we judge one thing to be preferred to another: and on the part

of the appetitive power, it is required that the appetite *should* accept the judgment of the counsel,"[47] though this it need not do. We make a deliberate choice of one thing in preference to another after having weighed one good against another good. We determine the choice. We choose and we have a reason for our choice. This motive is furnished by the intellect's apprehension of the good to which the will is attracted. If there were no motives there would be no deliberation.

All this is granted in ordinary life although it is denied, at least implicitly, when applied to God as the object of our belief. The reason or motive for our belief in the existence of God is either rational or irrational. If the motive for our belief is rational, that is reasonable, then the intellect has pondered over the reality of this possibility, and though the will gives its assent to the belief, the motive for the assent has been furnished by the intellect. And if the motive for belief in God is rational, then why seek refuge in, or give man a belief founded upon the will-to-believe? But if it be insisted that the motive for belief is irrational, we must be prepared to accept the following consequences. For a belief or faith, having its origins in the *will to believe* only that which we need or desire, is like having motivation without motive, or like motion without direction.

Motivation without motive.

Although James admits that the goal of philosophy is the rationalization of the world, he contended that the intellect cannot reach this goal of itself. The issue for him rested with the will. More precisely,

[47] I, q. 83, art. 3 c.

it rests with our "passional nature." "*Our passional nature not only may, but must, decide an option between propositions, whenever it is a genuine option that can not by its nature be decided on intellectual grounds.*" The existence of God was such an option. It had to be decided by our "passional nature." Even to say, "'Do not decide, but leave the question open,' is itself a passional decision,—just like saying yes or no,—and is attended with the same risk of losing the truth."[48] If God's existence is necessary for our attitude towards the universe, we are faced with Pascal's famous wager, but our intellect is powerless to decide which horn of the dilemma is true. It is as though you had climbed a mountain, "and have worked yourself into a position from which the only escape is by a terrible leap. Have faith that you can successfully make it, and your feet are nerved to its accomplishment. But mistrust yourself, and think of all the sweet things you have heard the scientists say of *maybes*, and you will hesitate so long that, at last, all unstrung and trembling, and launching yourself in a moment of despair, you roll in the abyss. . . . You make one or the other of two possible universes true by your trust or mistrust,—both universes having been only *maybes*, in this particular, before you contributed your act."[49]

It will be noted that the motive for the "leap" was one of our "passional nature." The validity of our trust or mistrust is determined by the fact that we ourselves make one of two possible universes true. There is, of course, the possibility that God does not exist. But if he does, you make His existence true

[48] *The Will to Believe*, p. 11.
[49] *Ibid.*, p. 59.

for you by following the needs of your passional nature. There was no other way out for James after having sacrificed, with his contemporaries, the possibility of certitude in our knowledge. As Professor A. K. Rogers points out, the *Will to Believe* "applies only to convictions that deal with momentous issues, where intellectual reasons are insufficient to settle the matter either way. . . . It is better . . . to risk being mistaken, than to give up the chance of truth through an exaggerated notion of the wickedness of error; in knowledge, as elsewhere, courage and the readiness to take a sporting chance are conditions of attaining the good."[50] But this does not leave such a belief free from the charge of subjectivism, neither does it make the belief rational.

It is true we can so *will to believe.* "We need only in cold blood *act* as if the thing in question were real, and keep acting as if it were real, and it will infallibly end by growing into such a connection with our life that it will become real."[51] This is psychologically possible, but it can never give objective reality to what is a mere possibility. To say the least, it cannot escape the charge of irrationality. And who, if any one, is to be the arbiter between beliefs that are valid and those which an increasing number feel they need to believe to hold their lives steady in their own eyes, who are nevertheless housed in places that we call insane asylums? The attitude taken by the philosophy of the will-to-believe in its quest for spiritual truth is entirely different from that assumed by the sane scientist, and it is also different from the theory of knowledge which the man of common sense daily

[50] *English and American Philosophy since 1800* (1922), p. 371.
[51] William James, *The Principles of Psychology*, II, 321.

employs in relation to other things of the universe. It makes for a free belief, but a belief based not on cognition, but self-deception. We might liken it to a young man who persisted in living as though he were heir to a million dollars. He might wake up some day and find that in reality he is heir to a fortune which he has great need of because of his financial straits, but he might more conceivably wake up some morning behind prison bars.[52]

"The argument that we should believe certain things because they are helpful to what we have assumed to be practical interests, is a wilful confusion between what may be pleasant for the time being and what is determined by the weight of rational evidence. Theoretic reason in the form of logical science is the effort to determine the weight of things. To tip the scales by the will to believe is childish foolishness since things will generally continue to weigh what they do despite this tipping."[53]

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[52] "If a mode of effectual and speedy cure be proposed to a sick man, he cannot but wish that the result of his inquiries concerning it may be a well-founded conviction of the safety and efficacy of the remedy prescribed. It would be no mark of wisdom to be indifferent to the restoration of health, but if his wishes should lead him to put implicit confidence in the remedy without any just grounds for it, he would deservedly be taxed with folly. In like manner, a good man will indeed wish to find the evidence of the Christian religion satisfactory, but will weigh the evidence more carefully on account of the importance of the question."—Archbishop Whately, quoted in Fulton J. Sheen's, *Religion without God*, pp. 212, 213.

"There is no mere 'will to believe'; a merely willed belief is a sham belief; it is no real belief. . . . The part which willing has in the game is this: the mind can either will to follow along the paths on which true light shines, and in which alone therefore right belief can be attained, or will to deviate from them, and so wander into the regions of darkness and delusion."—Flint, *Agnosticism*, p. 451 ff.

[53] Morris R. Cohen, "The Insurgence against Reason," *Journal of Philosophy and Scientific Methods*, II, 126.

No scientist would say that he was free to believe or not believe in a reality. But belief grounded on the will-to-believe is the affirmation of that which we would condemn in the scientist. It is a belief which implies the denial of free will, as it is the result of *acting* upon a need of our passional nature. God is made necessary for our attitude towards the universe, not because reason demands His existence and gives us valid grounds for His existence, but because we *feel* that we need Him. If, by any chance, He does exist, His existence for us will be *the outcome of our action* which will lead to a reality of the religious world-order. The belief is not founded on any form of cognition. It has no validity as knowledge. It is the outcome of a will-to-believe, but it is not determined by a will to know the truth.

Men may be free to believe or to disbelieve in God. Their belief in Him must be founded on knowledge, however inadequate that knowledge may be. If they know Him, they can come to love Him. It is only in knowing Him as He is that we can love Him at all. Goods of the world, useful or pleasurable, are chosen in preference to Him, either because He is not known, or because He is known inadequately. Those who cease to give attention to Him, having once believed, make the deliberate choice of preferring some earthly good or happiness in His stead. Their knowledge of Him was certainly defective. Today, we find some people who have given up belief in hell, who still retain an idea of God as all-merciful; but they do not know Him as all-holy and all-just. The God they know, or the one they *wish* to know, becomes a caricature of God as He really is. It is as though we were to conceive of an ideal father who is loving and

merciful, and to leave out all notion of his duty to correct or punish the wayward son. It is to forget that God is a person, and that just as our happiness in heaven consists in being united to the best and most perfect of friends, so too the greatest suffering of hell is the pain of loss—of having lost for all eternity Him Who is our true happiness.

To conclude: in our daily actions we do not choose one thing in preference to another unless we have some motive impelling us to make a choice. If two things are equally good under the same aspect, then some other factor must enter in which tips the balance of the scales in favor of our ultimate choice.[54] And if we act as rational beings, not merely following the impulse of our "passional nature," the decision must be rendered by the intellect after weighing the pros and cons. If our belief in God is rational, there must be rational motives for our accepting this belief. If it is irrational, we are likely to go through life trying to find our happiness in the goods of this world—making life a game of blind man's buff—and even then the primacy will not be placed in the will, but in the impulses of our "passional nature."

Motion without a direction.

All things in this universe, man included, have their curve to trace. All have an end which they desire to reach. In seeking this end each is striving for that which constitutes its good or happiness. Each is seeking its own perfection. "*Things that know* the end, and *things that do not know* the end, are equally directed to the end; although those which know the end are moved thereto *per se*; whereas those which do not

[54] 1–2, q. 13, art. 6 ad 3.

know it, tend thereto as directed by another, as may be seen in the archer and the arrow."[55] In striving for their end, all things imitate the Divine goodness, all desire to share in that goodness,[56] according to their measure. It is God Who "is the end of all things, yet so as to precede all in being. . . . Things therefore are not directed to God, as to an end that can gain something, but that they may obtain from Himself according to their measure, since He is their end."[57] In attaining their end according to their measure, all things gain their perfection, and happiness as well. But what of man, is he to be deprived of true happiness?

Certainly "happiness is man's supreme perfection."[58] It is the one thing that all men desire. It is the one thing that all men strive for as long as there is life in them. But "since happiness signifies some final perfection; according as various things capable of happiness can attain to various degrees of perfection, so must there be various meanings applied to happiness. For in God there is happiness essentially. . . . In the happy angels, the final perfection is in respect to some operation, by which they are united to the Uncreated Good: and this operation of theirs is one only and everlasting. But in men, according to their present state of life, the final perfection is in respect to an operation whereby man is united to God: but this operation neither can be continual, nor consequently, is it only one." Hence perfect happiness cannot be attained here by man. His "is a participation of happiness: and so much the greater, as the operation

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[55] *C. G.*, lib. 3, c. 16.
[56] *C. G.*, lib. 3, c. 20.
[57] *C. G.*, lib. 3, c. 18.
[58] 1–2, q. 3, art. 2 c.

can be more continuous and one." That operation consists in contemplating, in knowing God, Who is Truth.[59] With knowledge of God comes love as a consequent, in a similar way as knowledge of a person possessing qualities we admire and love begets love and friendship for that person. Hence, love is not the essential element of perfect happiness. It is merely a necessary complement of it.[60]

The inanimate things of the earth, plants and animals, reach their perfection in virtue of the direction which they have received from their Creator. Man, no less than these, and in a higher and nobler degree, desires his perfection, which he fails to reach when he ceases to think about his end and his place in the universe in a sane and rational way. Men have lost their sense of direction through a lack of interest in things intellectual. Increasingly they follow the urge of their "passional nature." Increasingly are they becoming enmeshed in the useful and pleasurable goods, which were only meant to help us obtain union with the One Absolute Good. Acting without a rational motive as to the end of human life, men are perpetually in motion without any sense of the direction in which they should be headed. Ever in search of perfection, they think themselves on the way by speaking eternally of progress.

Progress is movement towards an end. Progress is

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[59] *Ibid.* St. Thomas goes on to say, "Consequently the active life, which is busy with many things, has less of happiness than the contemplative life, which is busied with one thing, i.e., the contemplation of truth. And if at any time man is not actually engaged in this operation, yet since he can always easily return to it, and since he ordains the very cessation, by sleeping or occupying himself otherwise, to the aforesaid occupation, the latter seems, as it were, continuous."

[60] *C. G.*, lib. 3, c. 25, 26.

not made by being progressive, unless one knows to what he is progressing. By its very name, progress indicates direction, and the moment we are in the least doubtful about the direction, we become in the same degree doubtful about progress. There has probably never been an age that has had less right to use the word "progress" than ours. "In the Catholic twelfth century, in the philosophic eighteenth century, the direction may have been a good or a bad one, men have differed more or less about how far they went, and in what direction, but about the direction they did in the main agree, and consequently they had the genuine sensation of progress. But it is precisely about the direction that we disagree."[61] This becomes the more apparent as one studies the modern notion of values. Values are but another name for the various goods—useful, pleasurable and absolute—of the Scholastics.[62] But there is a difference. What were formerly considered to be only relative goods, as the useful and pleasurable, have now become absolute for many philosophers,with the result that God, the absolute good, has been left out of His own hierarchy of values. This evolution, rather devolution, of values may be briefly sketched. It will serve to show how our generation has lost its sense of direction as to the real purpose of life.

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[61] G. K. Chesterton, chapter ii, "On the Negative Spirit," *Heretics.*

[62] If we make an examination of the various goods to which we are attracted, we find three kinds of goods: the useful, the pleasurable, and the absolute good. The *useful* good helps us to reach an ulterior good. The *pleasurable* good is the subjective enjoyment or happiness that we experience in the pursuit or the attainment of some end. The *absolute* good is desirable in itself aside from the pleasure it may give or the use it may have.—I, q. 5, art. 6 c; ad 3; 1–2, q. 8, art. 2 ad 2; art. 3 ad 4; q. 99, art. 5 c.

As has been previously shown, the scientific intellectualism of the last century made God a god of abstractions, removed from the affairs of men. God had been steadily pushed back into the limbo of sceptical doubt. Meanwhile, man had fared no better because of the failure of a theo-centric universe which left him out of the scheme and made him a mere cog in the machinery of a universal machine. A revolt against such an absolutism was but natural. Among others, James raised a voice of protest. In place of absolutism he offered a "Pluralism" which placed great stress on human creative achievement, and then went on to emphasize the part that man plays in the universe. Hitherto deistic and theo-centric, philosophy and religion now became anthropo-centric. Man became the creator of values. His attitude toward the universe came more and more to be resolved into terms of its use to man. God might still exist for some men, but His existence was to be deduced in reality from the value that He may or may not have for us. This right of man was proclaimed to the world by James in the celebrated essay, "The Will to Believe."

In former times God was supreme, man was a creature of God. In the new order of things, man is supreme, he creates or helps to make God. In the old order, values or goods revolved about God the supreme good, all other goods were to lead us to Him. God was the ground of all values. All values were means to an end, and that end was God. Values were objectively fixed because man's end was God; subjectively they were relative because a man might place his happiness in some created good, if he so chose. Religion then consisted in man's service

to God, it looked to God, its purpose was to lead man to a union with Him Who constituted our true and abiding happiness. In the new order, a thing has value if it serves man, gives him pleasure, or satisfies some desire—and in this sense, God may have a value for us. Values are essentially of the temporal order; objectively and subjectively they are relative. Religion has become a "faith in the conservation of values," it looks to man, and if God fits into the scheme of things, it is from the viewpoint of His duty and service to man. Man creates his own happiness. He is become like unto a god.[63]

[63] Note: For practical purposes the current notions of values may be divided into three groups. The first group admit the existence of God as necessary for the realization of values, but on omitting William Sorley who approximates the traditional concept of God and values, we find the God of Hastings Rashdall, A. Seth Pringle-Pattison, W. E. Hocking, E. S. Brightman, Hugo Münsterberg, and Joseph Leighton to be a God who is limited or pantheistic. The tendency of these philosophers is to place man first. God is considered only in the light of values,—of what value is He to man in the conservation of values—so that God becomes a God of values. The second group makes use of the notion of God, but in reality they deny God's existence outside of the world. Thus, "Interest constitutes value"—R. B. Perry. Value is the content of feeling, pleasure or pain felt upon the existence or non-existence of an object. Value is that which one would desire if one knew that the thing existed—Ehrenfels. Professor Urban formerly held that the ultimate value is that which ought to be, though he now veers towards the Scholastic conception of values. The third group holds that values are simply related to the world. Man is the source of all values. Values do not transcend anything human. Among these we find Professor Roy Wood Sellars, B. Russell and Everett.

Any one interested in an exposition of these notions of values, together with a critical appreciation of same, in the light of Scholastic Philosophy, will find an excellent treatment in Dr. Fulton J. Sheen's *Religion without God.*

A defence of the objective reality of value, against those who try to reduce it wholly to human desires or interests, will be found in *A Study in the Logic of Value*, by Mary Evelyn Clarke (London, 1929). The author investigates critically the theories put forward by such men as

But what has in reality taken place? What are the results of this lack of direction that makes for true progress? Values are continually changing. There is no morality for the prophets of the new order. What were formally considered norms of morality have become taboos carried over from an age of superstition. Chaos rules in the moral order. Feeling, not reason, is the supreme criterion in life. Man is reduced to the level of the beast of the field. Desiring an eternal happiness, true happiness, his desires are doomed to frustration, he is the unhappiest of all creatures. Desiring perfection like other creatures, he alone cannot attain his perfection. And religion instead of being the sum of man's service to God, leading him to an abiding union with Perfection Itself, has ended in a threefold idolatry; the idolatry of the whole world—pantheism—given us in the new guise of emergent evolution;[64] the idolatry of an ideal, or spiritual ideals—which is Platonism in a new form;[65] the idolatry of man, who has become like unto a god in becoming a cooperator who helps God to realize

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[64] Professor S. Alexander in *Space, Time and Deity* gives us a universe striving for deity. "God is the whole world as possessing the quality of deity." *Op. cit.*, vol. ii, p. 353. God, as well as the world, is in the process of evolution. Professor Roy Wood Sellars adopts a similar view of the universe, but discards all notion of God; emergent evolution, as a theory, is a process that works satisfactorily for him—a process complete in itself.

[65] God becomes an ideal, a hypothesis characteristic of the religious view of the world, or a mental projection.—W. R. Mathews, Dean Inge, A. G. Tansley, T. W. Pym.

Meinong, Perry and Urban, who have endeavored to effect a compromise between the subjective and objective views. The author is to be congratulated particularly on the clear and effective way in which she states the arguments of those with whom she takes issue.

His plans.[66] Men have made new idols for themselves, but their idols tell them nothing of progress which means perfection. Their idols "have mouths and they speak not."[67]

III. EVALUATION OF THE "CREATIVE POWER OF THE WILL" IN THE WILL-TO-BELIEVE.

The *will-to-believe*, regardless of the restrictions which James placed upon it, is a blind faith which opens the door to superstition and credulity, unless the will can truly be said to create the object of its belief. Daily we experience the power of the will to intensify our desire for something that we want. Can the will create the object of its desire? If not, what is the true relation between the will and the intellect? And in what sense, if any, can we validly will to believe?

1. The will has the power of intensification.

The proportion between the will and the end which moves it, is similar to that which exists between the

[66] "Beyond each man and in a fashion continuous with him there may exist a larger power which is friendly to him and his ideals. . . . It need not be infinite, it need not be solitary. It might conceivably be a collection of such selves. . . ."—William James, *Letters*, p. 525, quoting from Bixler's, *Religion in the Philosophy of William James*.

"He works in an external environment, has limits, and has enemies." —William James, *A Pluralistic Universe*, p. 124.

"The line of least resistance, then, as it seems to me, both in theology and in philosophy, is to accept, along with the superhuman consciousness, the notion that it is not all embracing, the notion, in other words, that there is a God, but that he is finite, either in power or knowledge, or in both at once."—*Ibid.*, p. 311.

Others who hold similar ideas are Professor F. C. S. Schiller, Hastings Rashdall, J. M. E. McTaggart, L. T. Hobhouse, A. Seth Pringle-Pattison, Balfour, H. G. Wells.

[67] Ps. 113.

intellect and the first principles. In other words, "as the intellect naturally and of necessity adheres to the first principles, so the will adheres to the last end," which is the absolute or supreme good.[68] When the intellect is faced with self-evident truths reducible to first principles it cannot but give its assent to them. The closer its conclusions come to being directly reducible to these same first principles, the greater our certitude of their truth. And so too, when the will is drawn by the Absolute Good, it is powerless to resist the inclination; while the more closely goods approximate the Absolute Good the greater their power of attraction. But since we do not deal with unadulterated goods here on earth, this statement needs to be modified because the will in being attracted to goods of varying degrees, never facing the Supreme Good, and being free in its choice, can deliberately choose what it prefers as the Supreme Good when in fact it is only a pleasurable or a useful good.

The will chooses a lesser good in preference to a higher good because of its power to intensify our desire for any particular object. The desire for an

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[68] I, q. 82, art. 2 c. "Quamvis intellectus noster ad aliqua se agit, tamen aliqua sunt ei præstituta a natura, sicut sunt prima principia, circa quæ non potest aliter se habere; et ultimus finis, quem non potest non velle."—I, q. 18. art. 3 c.

Note: Though the will is necessarily drawn to the supreme good which is what is really sought under the guise of whatever it perceives as a particular good, it is attracted thereto as its *supreme* goal; whereas the intellect necessarily adheres to the axioms or first principles as its *starting point.* The freedom of the will is then expressed in its choice of means by which it may reach its goal, the intellect, however, possessing truth in the first principles, is free to advance to special truths which may be derived from them. In either the process may be halted or broken off. 1–2, q. 8, art. 3 c; ad 3.

object is intensified as the intellect increases in its knowledge of that object's desirability. But because it can intensify our urge towards what is a partial good, it cannot be said to create the thing desired. For example, a geologist hits upon the idea of locating a body of manganese ore for which there is a very good market because of the good prices paid for this type of ore in the steel industries. The project pleases him. It is a good desired by the will and is referred to his intellect to consider its feasibility, whereupon the intellect decides that there is a good possibility of locating an ore body of this kind within the territory of the United States. This would make the venture doubly worth while as the ore would be free of tariff. The intention to locate an ore body of this nature is now definitely determined by the will. Counsel is taken by the intellect as to various means available for finding this grade of ore. Again the will gives its consent. A further consideration weighs various schemes pro and con, and the will elects one definite method of exploration as being the best proposed. By force of the will's election or choice, the intellect goes on to order and execute the accepted plan of action in a likely territory. The will carries the exploration into action, and the operations having been carried on through the intellect, a body of manganese ore is in this instance discovered. The desired good has been obtained, the will is satisfied in the fruition of the project and the possession of a coveted good.[69]

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[69] These various acts, twelve in number, are set forth by St. Thomas in 1–2, q. 8–18. Garrigou Lagrange following P. Gardeil, *La Credibilité et l'Apologétique*, lists them as follows in his *De Revelatione* (Rome, 1925), p. 284:

From the conception of a desired body of manganese ore to its actual discovery, the will, in virtue of its desire to possess same, had the power of urging on the intellect to find the ore because of its great value. The intensity of the will's power to urge the intellect to find ways and means of obtaining such an ore body increased as the body of ore emerged from the realms of a mere possibility, to something feasible, and then to certain indications which prompted actual drilling operations. The better the actual body became known, the more it was desired. But no one would say that the will created the object of its desire.

The same procedure may be applied to a knowledge of God. Before a man can love God he must know that God exists. That He exists and is man's last end are truths which can be arrived at by natural reason,

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I. ACTUS CIRCA FINEM.

Ordo intentionis.

Actus intelligentiæ	Actus voluntatis.
1. *Judicium:* hic finis est *desiderabilis.*	2. *Desiderium* (simplex velle nondum efficax).
3. *Judicium:* hic finis est *assequibilis* et *assequendus*	4. *Intentio* efficax: volo hunc finem.

II. ACTUS CIRCA MEDIA.

A. *Ordo electionis.*

5. *Consilium:* hæc media in globo mihi videntur apta ad finem.	6. *Consensus* his diversis mediis.
7. *Judicium practico-practicum* de hoc medio magis apto et eligendo.	8. *Electio huius medii.*

B. *Ordo executionis.*

9. *Imperium:* ordinatur et intimatur executio medii electi.	10. *Usus activus* voluntatis, quæ movet alias potentias ad executionem.
11. *Consecutio* finis desiderati.	12. *Fruito* voluntatis fine consecuto.

assuming that man is interested in knowing whether God exists and that he is not blinded by prejudice or passion in his search of these truths. The intellect from a survey of the universe comes to a knowledge of God as the creator and the end of all things—the end towards which all things are striving in so far as each is capable of doing so—and that He is the One Supreme Good in which man will find true happiness. The will being moved towards any good, is naturally moved towards its own ultimate good, God. The intellect decides that it is to the highest and best interests of man to direct all his efforts toward reaching God. His existence is not only possible; He does exist. What are the best ways of reaching him? At each step, the assent of the will is given, though it could be withheld. In proportion as the intellect comes to know God better as man's end and greatest good, the more desirable does He become—the greater the driving force of the will to attain this greatest good.

It may be objected that if the foregoing is true, why do not all men know God as their end, and why do they not make every effort to attain Him who is the greatest good? The answer is contained in the fact that man possesses free will. His inclinations always follow the good desired by the will but not every good proposed by the intellect.[70] This is exemplified daily in countless

[70] "Intellectus aliquid naturaliter intelligit, sicut et voluntas aliquid naturaliter vult; sed coactio non est contraria intellectui secundum suam rationem, sicut voluntati. Intellectus enim, si habeat inclinationem in aliquid, non tamen nominat ipsam inclinationem hominis, sed voluntas ipsam inclinationem hominis nominat. Unde quidquid fit secundum voluntatem, fit secundum hominis inclinationem, et per hoc non potest esse violentum. Sed operatio intellectus potest esse contra inclinationem hominis, quæ est voluntas; ut cum alicui placet aliqua opinio, sed propter efficaciam rationum deducitur ad assentiendum contrario per intellectum."—*De Veritate*, q. 22, art. 5 ad 3; *ibid.*, q. 22, 23.

different ways, where men simply do not want to know the truth because of their preference for some good which they now enjoy and possess. Material interests and self-esteem probably sway men most in this way. Thus Haeckel spun scientific cobwebs of explanation concerning facts which he desired but could not find in nature, and he deliberately falsified known facts, so that he might make out his case against theistic evolution. With such men we are not now concerned, but let us consider a situation such as arises when a man finds his intellect logically heading for a conclusion that will upset his "pet" theory, which after all has something good in it, and which at all events promises to continue serving him if it is left alone. Let us assume that he recognizes truth as a good, and we have the situation in which his intellect has presented before it the possibility of securing the good of a further insight into the truth, if he will continue the proposed course of investigation. His intellect at the same time perceives that if the newly suggested conclusion should prove true that much of his previous work would thereby be discredited. The will must decide what is to be done. It may command the intellect to pursue the new vista of truth, and determine its reality, or it may decide to steer away from such a course and be content with the partial truth that is already possessed.

The will's power of intensification may be illustrated in another example which will help to make clear how men can become so absorbed in one set of truths as to wish to inflict their view-point upon every one else. First let us take the case of the pure scientist who becomes so absorbed in his science that he loses all appreciation of other values, or conclusions, which do

not fall in with his particular outlook on the universe. Darwin had great admiration for the argument from design, as set forth by Paley, up to the time of his discovery of the law of Natural Selection.[71] Instead of attempting to reconstruct his view of the universe as he should have done in light of the law of Natural Selection and the "endless beautiful adaptations which we everywhere meet with,"[72] his enthusiasm for a newly discovered theory led him to overlook and withhold recognition of the truth still contained in the argument from design. Fundamentally the argument was sound: all it required was a reconsideration, a restatement in the light of newly discovered facts. Thenceforth, Darwin's attitude was that of an agnostic; for himself he did not know whether God existed or not. Having deliberately cast aside the argument from design, which made God's existence real for him, he honestly confessed his ignorance and kept within the territory of his science. He did not attempt to give us a new "god," or a new theology. For this he is to be sincerely admired, and in this he offers a contrast to the next case that we will take up.

There have always existed groups who insist on the supremacy of man's reason, who insist that man may trust his judgment, but who will not tolerate any attitude at variance with their own unbelief.

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[71] "The old argument from design in nature as given by Paley, which formerly seemed to me so conclusive, fails now that the law of Natural Selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings, and in the action of Natural Selection, than in the course which the wind blows."—*Life and Letters*, I, 309.

[72] *Ibid.*

They let their passion for a particular method run away with their reason. They see "red" at the bare mention of religious belief. They forget that if unbelievers may trust their own judgment in rejecting religion, that there is every reason why they should extend the same privilege to believers, who are led by reason to a belief in the existence of God. It is not the believer, but themselves who are unreasonable. They fail to hold their prejudices in check. Were they reasonable and truly scientific, they would permit the intellect to follow the lead of an argument, wherever it appears to lead rather than force it into an unnatural channel. They would hold themselves open to truth wherever it might be found, instead of looking for arguments to be employed in supporting their unbelief; much less would they strive to force their views upon others under the penalty of having the anathema "unscientific" hurled at them. It was against unbelievers of this kind that James urged his *Will to Believe*. He saw the duty of the will to keep prejudice and passion in check, even though he did urge men to follow the needs of their "passional nature."

Since liberty in the true sense of the word supposes a mind which reflects upon and judges the facts in hand, the intellect must be left free to follow truth wherever it may be found. If we permit our will in its choice of facts, or in their interpretation, to be influenced by our emotions, passions and sentiments, these promptings, when disordered, cannot but nullify the true work of the reason and end in either an unbelief, or a willed belief bearing the ear marks of crass credulity.

There are times when to believe is to get rid of

doubt or suspense, for example when it causes the emotion of satisfaction, in which is contained a pleasurable feeling. This was one of the fruits of a religious belief which James insisted upon as being common ground to all religions.[73] "This effect of belief may in turn become a cause or motivation of future believing. We can be persuaded as well as convinced . . ." And although "we can by no effort of will come to believe what we know to be false; . . . we can come to take for fact what is not fact, and so entertain erroneous belief, in consequence of several kinds of subjective motivation. . . . There is then objective constraint or fascination, which results from selective attention." The will can will a belief in the kind of a god that it wants, or it can will an unbelief in God. "The pleasurable aspect of a situation so dominates attention, sometimes, that a person at first will not, and at last cannot, see the other side. It is selective attention, in fact, controlled by individual interest and uncontrolled by consideration of the over-individual, or thought shaped by desire and emotion and unchecked by doubt and proof, that is the source of personal bias, as distinct from reasonable conviction. And, in this connection, the disconcerting fact should be noted, that a large proportion of defects, that we are wont to account intellectual, are at bottom moral."[74]

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[73] *The Varieties of Religious Experience*, p. 508.

[74] F. R. Tennant, *Philosophical Theology*, I. 293. "Shallowness is generally self-indulgence; unthoroughness, impatience; slavery to words, idleness; special pleading, insincerity; facileness, or the simplification of problems by ignoring their difficulties, is an immoral abomination of complex nature; and the inevitable limitations of the ability and agility of a person's intellect have little to do with such mental habits, which

When so much is at stake, as in the question of our beliefs, there is an especial need of disciplining the emotional side of our nature so that we may know the real value of the goods among which we must make a choice. The better our knowledge of any good that attracts us, the greater our desire. Hence, the need of an interested but unbiased study of our ultimate good and final end, God.

It may be urged that we cannot know God as we know the goods of the earth, in fact we find ourselves frequently attracted to people whom we do not know, while many love God with little or no knowledge of Him. In this instance, love or desire seems to anticipate knowledge. But if the will seems to overflow its limitations, it is not actually love of one unknown or imperfectly known that we experience,

often accompany what is brilliancy. Their absence is conditioned, rather by the expulsive power of the affection which may be called loving truth with a love like the love of a home. Thus there is much justification for the general assertion that Objectively true belief (believing) is morally conditioned; but it needs qualification. It does not apply, of course, in cases in which certitude is compelled wholly objectively; and there is exaggeration, as well as somewhat of correctness, in the statement that 'spiritual' (i.e., presumably ethical-religious) truth is 'spiritually' discerned. That certain sympathies, refined appreciations, moral discipline, etc., are conditions of insight into certain kinds of values, goes without saying; that character conditions the attitude one will take towards the *cui bono* of the historical and axiological, is plain; that purity of heart is essential to right judgment in some matters, has been already observed; that the open mind, personified by the 'little child,' is requisite for reception of truth, is beyond question. But sincerity, in so far as we can judge of its presence, does not always, in this life, 'see God,' nor necessarily carry with it apprehension of truth in other matters. It is a condition, but not the only condition. . . . There remains, when all has been said as to ethical conditions of the believing of true beliefs, a purely intellectual element . . . an element whose function cannot be performed by any other faculty or capacity that goes to make up 'the whole man.'"—*Ibid.*, pp. 293, 294.

but love of something else that we do know, which we attribute to the person so loved. A man may have an intense desire to study philosophy, though he knows nothing of it; still he does know that philosophy gives one a synthesis of all knowledge, and seeks to give an answer to the ultimate realities of life. When we feel drawn to a person whom we scarcely know, an intimate acquaintance with him will serve to disillusion us if we have wrongly attributed to him that which he does not possess. If he is even nobler than we had thought him to be, our love is increased and deepened. And so a man may have an ardent love of God, with only a vague idea as to what God is. No one here on earth knows Him as He is. However we can grow in our knowledge of Him, and as we come to know Him to be the sum of all good, of greater good than we here know and possess, we come to desire Him above all else. Perfect love of God will come only when we *see* Him as He is. Where there is perfect knowledge there is perfect love. That is why the blessed in heaven are supremely happy. That is why there is infinite love between the persons of the Blessed Trinity.

2. Relation of the intellect and will.

Though the will has great power to intensify the desirability of an object that we wish to possess, still the intellect and will are two faculties distinct from each other, even if they do mutually include and influence one another. There is no more subtlety in this distinction than there is in saying that your eye is not your ear, or that your right ear is not your left ear, or that your right eye is not your left eye. These facts are commonly admitted because they are

facts of common experience. But what then, is the actual relation between the intellect and will? Which of these two faculties is the nobler?

James is right when he gives the primacy to the will in relation to things which are above us, though he is wrong in failing to distinguish this primacy relative to objects above us and those that are below us.

The intellect is nobler than the will in relation to things which are below the soul in nature and dignity.[75]

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[75] "Absolutely speaking, the intellect is higher than the will for the reason that its object is more simple. Though the intellect must use the senses, yet in its movement toward the intelligible it leaves behind it as many images as possible, whereas the will carries them with it in its movement toward the object which it loves, that is, carries with it the affections of the sensible appetite. Even in a practical way, knowledge is imperfect as long as it carries subjective dispositions and prejudices with it. Furthermore, the object of the intellect is within itself, whereas the object of the will is that which is presented by the intellect." I, q. 83, art. 2 c; *De Veritate*, q. 22, art. 11.—Fulton J. Sheen, *Religion without God*, footnote p. 95.

"Quando vero res, in qua est bonum, est infra animam, tunc etiam in comparatione ad talem rem intellectus est altior voluntate."—I, q. 82, art. 3 c.

Inasmuch as the act of the intellect seems to follow the act of the will when the intellect investigates some particular truth, or follows a line of reasoning, the will might be thought to be above the intellect in this process. But reflection shows that it is only because the intellect has already represented the knowledge of truth on this subject as a desirable good that the will leans to it at all, or commands the intellect to investigate it. Ultimately, the initiative belongs to the intellect though there is an interplay between the two faculties.

"Sicut actus intellectus videtur sequi actum voluntatis, inquantum a voluntate imperatur; ita e converso actus voluntatis videtur sequi actum intellectus, inquantum per intellectum præsentatur voluntati suum objectum, quod est bonum intellectum. Unde esset procedere in infinitum, nisi esset ponere statum vel in actu intellectus vel in actu voluntatis. Non autem potest status poni in actu voluntatis, cum objectum præsupponatur ad actum; unde oportet ponere statum in actu intellectus, qui naturaliter intellectum consequitur; ita quod a voluntate non imperatur."—*De Potentia*, q. 2, art. 3 ad 3.

The reason is obvious. The intellect elevates sensible objects by knowing them, endowing them with a new form of existence; whereas the will is drawn to its object, thus descending to the level of the sensible when that happens to be its object. As expressed by the Schoolmen in the thirteenth century, "The thing known is present in the knowing subject according to the mode of being of the knowing subject."[76] Things known are assimilated by the intellect, very much as our bodies assimilate food. The latter being corporeal assimilates things in a corporeal and material way, the former being spiritual assimilates things in a spiritual way. Thus a stone or a rose having a mere material existence is ennobled and receives an added perfection in being known by the human mind. They become one, as it were, with the intellect by its act of apprehension.[77] The will, however, instead of drawing its object to itself, goes out to meet its object. Hence, when the object loved is beneath the soul in dignity, the will in becoming attached to the sensible, descending to mere material satisfaction, degrades itself. This truth is evidenced daily in the contrast afforded between the lives of men who become engrossed and ensnared in the material and sensual things of the world and those of men who are continually striving after the nobler and more elevated things of life. Both the intellect and will seek to be united with their objects. When that object is below the soul, it is elevated and ennobled by the intellect in being known, but the will in being identified

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[76] "Scientia est secundum modum cognoscentis. Scitum enim est in sciente secundum modum scientis."—I, q. 14, art. 1 ad 3.

[77] "All knowledge results from a similitude of the thing known in the subject knowing."—Another axiom of the Schoolmen.

with material things is degraded by embracing the limitations of that which is purely material. Pragmatism, in conceding to each man, as the object of his religion, whatever is in the line of his needs, thus sanctions an enslavement to the material and sensual whenever that need is placed in anything less than God, the Supreme Good.

Considered *in relation to things above the soul in dignity, the will* may be said to be *nobler than the intellect.*[78] The reason is again obvious from the manner in which the intellect and will act towards things above the soul. The intellect, strictly speaking, is not perfected by its knowledge of material things even though it is able to grasp their intelligibility and endow material things with a higher form of being. Its true perfection consists in God. And in its knowledge of God, the intellect which is finite, attempting to identify the Infinite with itself, does so only imperfectly—its knowledge of that which constitutes its perfection is inadequate. Here the will aids the soul in attaining its perfection, for in going out to the object loved and tending to become one with it, the soul, and the will of which it is a faculty, is ennobled whenever the object loved is nobler than itself.

Consequently, "the love of God is better than the knowledge of God; but on the contrary, the knowledge

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[78] I, q. 82, art. 3 c. "Si autem nobilitas illius rei insit alii rei vel æque nobiliter, vel nobilius quam in re cujus est; tunc absque omni dubitatione nobilius erit quod in se nobilitatem rei alterius habebit, quam quod ad ipsam rem nobilem qualitercumque ordinatur. Rerum autem quæ sunt anima superiores, formas percipit intellectus inferiori modo quam sint in ipsis rebus: recipitur enim aliquid in intellectu per modum sui. . . . Et eadem ratione earum quæ sunt anima inferiores, sicut res corporales, formæ nobiliores in anima quam in ipsis rebus." —*De Veritate*, q. 22, art. 11 c.

of corporeal things is better than the love thereof."[79] In his knowledge of corporeal and sensible things the scientist ennobles these things by knowing them; but the scientist is ennobled in loving things above himself, especially in loving God who is his perfection. This is why men do not find true happiness in the consideration of the speculative and practical sciences.[80] A man is judged by the friends he chooses. He may also be judged by the goods that he chooses. As Aristotle says, "According as a man is, such does the end seem to him."[81] Man has it within his power to make things earthly his end in life, or he can follow things heavenly which constitute his true perfection. To put it in another way, there are two laws of gravitation, one to the center of the earth, the other to things divine. To follow the one is to become of the earth, earthly; to follow the other is to become like unto God, godlike.

The Scholastic philosophers drew practical applications from the foregoing principles. Nay more, in them they saw the very foundation of all religion worthy of the name. Since the mind desires to know things, to know God is to know all, as He is the First Cause of all, the Source of all being, the Author of all life. The least knowledge of Him is worth more than the knowledge of all created things, for if we do not know Him, we know nothing in its cause or in the source of its being. The vision of the biologist is restricted to that life which he can see at the end of his microscope. The physicist's understanding of the universe is in terms of abstract laws. Each is limited to a small portion of reality. Each studies things that

[79] I, q. 82, art. 3 c.
[80] 1-2, q. 3, art. 6 c.
[81] 1-2, q. 9, art. 2 c.

are transitory. As a pure scientist, neither sees the universe as a whole, neither attempts to grasp the ultimate *why* back of the objects which he observes. Yet, their search for truth is a search for God who is Truth.[82] In their ideas of the reality which they study, they gain a knowledge of the archetypes of things as they exist in the mind of God. They may rest content, if they will with these ideas. They may give their entire love and devotion to science. But if they wish to go further in their quest for Truth, if they seek the answer to the ultimate *why* of all things, like a Pasteur and a Millikan, their knowledge of things finite can lead them to a knowledge of the Infinite. Imperfect though that understanding of God may be, as long as they are here on earth, it will enrich their understanding of the universe about them, and it will lead them to a profound love of God and things spiritual.

Knowledge then is not an end in itself. Knowledge begets love. One may say that he would be content to know a certain individual who is endowed with a noble and lovable character. His knowledge of that person cannot but beget love for him. Knowledge and love are correlative. The better one knows a friend of sterling character, the more does he love that friend. And in like manner our growth in a true knowledge of God begets a corresponding increase of love for Him. From the created things that are made and understood, we can come to a knowledge of God. Our reason can give us the direction that we must follow if we wish to reach Him. But there

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[82] "Omnia cognoscentia cognoscunt implicite Deum in quolibet cognito. Sicut enim nihil habet rationem appetibilis nisi per similitudinem primæ bonitatis; ita nihil est cognoscibile nisi per similitudinem primæ veritatis."—*De Veritate*, q. 22, art. 2 ad 1.

must be harmony between our reason and will. We must love things according to their true worth. The intellect points the way. The will is free to follow, —if it is not inordinately attached to the goods of the senses.

This is the key to the self-discipline and mortification, recommended and enjoined by the Catholic Church, though decried by a pleasure-seeking world today. Mortification is not an end in itself, as practised by the saints. It is a means to an end. That end is God Himself. Without this end and motive, mortification becomes meaningless and cruel self-torture. We need to fill our life, not empty it. Life is too strong, our nature is too positive, to be content with mere restraint and repression. We crave life and that more abundantly. This the saints found in emptying self of self, in so far as we all have a tendency to become selfish and inordinately attached to things of the earth. They withdrew themselves from the law of gravitation which tends to draw us to the earth and make us earthly, that they might follow a higher law and tend to things heavenly.

Professor James appreciated the necessity of being systematically ascetic and heroic in what he calls "little unnecessary points" so that man might be able to stand the test and be true to his higher and nobler self. He likens it to the fire insurance which a man pays on his house and goods. But he misses the point when he contends that the tax we pay in asceticism does us no good at the time and may possibly never bring a return. Self-discipline rightly directed does bring an immediate return by turning our will to the things of God by which we are ennobled and carried out of ourselves. As James himself admits,

a man becomes a slave to wealth all too easily when that becomes the dominating motive in a man's life, while the "man for whom poverty has no terrors becomes a freeman." It is well to say with St. Augustine, "If you only love God enough, you may safely follow your inclinations." Yes, but this implies that man knows God, and is not suffering from an inordinate attachment to the pleasures of this world. St. Augustine was deterred from turning to God for years. The step seemed an impossible one to him, and was made only after years of struggle with his lower passions. It required self-denial plus the grace of God.[83]

The will never rests with loving an object. It is quieted only by possessing or being united with the object of its love. The man who loves sensual pleasure and goods will sooner or later think them to be the highest good. The remedy against such inordinate love is mortification. Self-denial or mortification disciplines the will so that it may more easily follow the way to, and be united with, what reason points out to be the one supreme good, God.

3. The will to believe—rightly understood.

The wish to believe can be said to precede actual belief, as is seen for example, in an individual's belief in the existence of God. But if the belief is to be a valid one, the truth or fact of the reality must pre-exist the will to believe. This is quite different from James's will-to-believe.

[83] In *The Varieties of Religious Experience*, p. 273, James gives us his inadequate definition of asceticism; pp.297-310 he gives us his six motives for practising asceticism, which are further considered on pp. 360–365. For a clear-cut exposition of the Catholic notion of mortification, cf. B. W. Maturin's, *Self-Knowledge and Self-Discipline.*

According to James the way to attain God is the direct way of personal "religious experience" which gains its certitude from a strong and ardent will to believe. It is the direct plunge to God, in the manner of the Protestant Reformation, not only without mediation but without reason.[84] The implication of James is that the human intellect should be dispensed with in the investigation of God. The will is all-important. It holds the primacy. We see this brought out in his "faith ladder," given us in his *Pluralistic Universe*,[85] which accentuates three elements that all make for this primacy. They are: first, the importance of the subjective factor in beliefs and in truth itself;[86] second, that beliefs are practical in nature; third, man plays a creative part in the making of truth.[87]

A belief such as this leaves itself open to the criticism that a man's wish is father to his thought. And this objection was urged by many in the nineteenth century. Mill in his posthumous essays says, "We are living in an age of weak beliefs, and in which such belief as men have is much more determined by their

[84] Wyndham Lewis, *Time and Western Man* (New York, 1928)

[85] *Op. cit.*, pp. 328, 329.

[86] "Hardly a law has been established in science, hardly a fact ascertained, which was not first sought after, often with sweat and blood, to gratify an inner need."—*The Will to Believe*, p. 55. "But the inner need of believing that this world of nature is a sign of something more spiritual and eternal than itself is just as strong and authoritative in those who feel it, as the inner need of uniform laws of causation ever can be in a professionally scientific head."—*Ibid.* p. 56. Elsewhere he says, "If your heart does not want a world of moral reality, your head will assuredly never believe in one."

[87] "All that Schiller and I contend for is that there is *no* 'truth' without *some* interest, and that non-intellectual interests play a part as well as intellectual ones."—*Letters*, II, 295–6. Cf. Bixler, *op. cit.*, pp. 91 ff.

wish to believe than by any mental appreciation of evidence." Tennyson's works give repeated evidence of the conflict that went on within his breast. His poem, "The Two Voices," clearly shows the tortures that he suffered from a harrowing doubt as to whether man could have a well grounded, reasonable belief in God. The factors that made for both scepticism and credulity in the last century have received an impetus in the effects of recent scientific discoveries upon thought of today, and the influence of mass production which has made luxury cheap. Scientific discoveries in physics and chemistry which upset the supposed "last word" of the previous century have made this age's spirit of questioning, more penetrating than ever before, begetting an attitude of sceptical doubt towards all knowledge; which, coupled with our modern facilities for pleasurable enjoyment that panders to the senses, has killed all relish for an eternity which might be only a "maybe."

This decline of interest in religion is, in the last analysis, largely the outcome of an attitude which has its roots back in the sixteenth century, when the so called right of private judgment logically made way for the right to believe what a man wills to believe. This attitude is not tolerated for a moment in any other sphere, yet it is countenanced in regard to the most important thing in life. Nay more, it is lauded. But if God exists, if there is a future life, it is imperative that our lives be guided and lived accordingly; if He does not exist, then why not follow our every whim and make the most of the goods of this earth, why make sacrifices for others, why is one action nobler than another? A rational being would want an answer to such an important issue, and, as a matter of fact, a

man may adopt one of three attitudes in relation to the question. He may lack the wish to believe or disbelieve, though he must do either one or the other in practise, if he does not want to believe, he clearly *wishes not to believe.* He may, if he so chooses, *believe what he will,* that is what pleases him. Finally, he may *wish to believe the truth,* carefully weighing the evidence for and against the proposed belief.

The wish to believe is intimately bound up with the sense of importance of the belief to oneself, and if an individual acts sanely he will seek true knowledge on the subject in question. True knowledge will never be obtained through a mere wish to believe, any more than the Lincoln Memorial at Washington, D. C., will exist in reality because I will to believe that it exists there. If I wish to have a rational and well-founded belief in its existence I must make a careful inquiry as to the fact. I must have evidence for my belief. In this sense, there can be a wish to believe, if it takes the form of an anxious scepticism that wishes to believe if it can do so securely and truthfully. A wish to believe of this kind is of real service, but it demands a careful examination of the reality and truth of the belief. It gives primacy to the intellect, being urged on by the will because of the good to be gained. It wishes to believe, but it is first determined to get at the truth.

The shriek of a drowning child may be heard by a lazy man and by its mother. The lazy man will be content to believe that the child is only playing. The mother is alarmed at what sounds like her child's voice. She is not satisfied with the explanation that the child is playing. Her wish to believe that the child is only playing, makes her take all the more pains to

satisfy herself as to the truth concerning her child. The mother wished to ascertain the *truth* of the fact, the lazy man wished to continue undisturbed in a comfortable position and state of mind.[88] These two wishes exemplify the difference between *an honest desire for the truth of a given fact* and *the desire for the happiness or pleasure which a thought may give one.* The former makes one less ready to believe because the mind is in doubt, it is seeking for truth, it will not believe until it knows the truth of the facts in question.

Wilfrid Ward in his masterly study entitled, *The Wish to Believe*, takes up three different attitudes which a man may conceivably take in regard to a given truth of belief: (1) the attitude of captious scepticism; (2) the credulous attitude that wishes to believe; and (3) the critical, interested attitude that wishes to believe the truth. We shall take up each in its turn.

The *attitude of captious scepticism is* at heart *an indifferent attitude to the final outcome of the investigation.* It lacks a motive for wishing to believe in preference to disbelieving. We find it exemplified best in the attitude taken by a law-court, where it is excellent for the examination of matters in which the evidence is purely factual or verbal, and in which the interest is speculative rather than having a bearing upon our personal welfare. It demands absolute impartiality and indifference as to what conclusion the evidence may point out. It is suspicious of any excitement or passion as it works on the principle, perfectly sound in such questions, that passion is an opposite force to love of truth, because passion acts in self-interest and usually begets prejudice in the prob-

[88] Wilfrid Ward, *The Wish to Believe* (1885), pp. 58, 59.

lem under consideration. Hence, passion or interest in the outcome must be eliminated if the truth is to be obtained. This attitude demands impartial reasoning. As a consequence, it will overthrow error and false religious belief in this type of an investigation, but it will fail to find a true belief unless perchance the person already possesses such, in which case the truth of that belief is confirmed; otherwise it can only lead to out and out scepticism.

Nor will this attitude bear much better fruit in scientific investigation which demands that the research worker be interested in the outcome of his problem. "If you want an absolute duffer in an investigation, you must after all, take the man who has no interest whatever in its results: he is the warranted incapable, the positive fool. The most useful investigator, because the most sensitive observer, is always he whose eager interest in one side of the question is balanced by an equally keen nervousness lest he become deceived."[89] Science has organized this attitude of "keen nervousness" into a regular technique, "her so-called method of verification; and she has fallen so deeply in love with the method that one may even say she has ceased to care for truth by itself at all. It is only truth as technically verified that interests her."[90] Pure science is satisfied with the truths which she obtains by what Eddington calls its "selective process." Its truths are only scientific abstractions, out of which it builds a "scientific world" which has "no immediate counterparts in everyday experience." And as this "scientific world" is built from a relation-structure, it "is no

[89] William James, *The Will to Believe*, p. 21.
[90] *Ibid.*

doubt doomed to be pulled about a good deal as our knowledge progresses." Thus "the quantum theory shows that some radical change is impending."[91]

The attitude of captious scepticism is therefore doomed to failure in investigating the truths of religious belief. It is likewise doomed to failure in scientific research. The latter falls short of the mark in obtaining a knowledge of religious beliefs because of its restricted interest; it is content with a partial view of the universe in which we find ourselves.

The second attitude that may be taken, credulous as it is, might well be called the *superstitious attitude* since it *implies flippancy in belief*. It shows a readiness in adopting, and an equal readiness in changing its belief. This attitude will be directed to some extent by what it wants to discover. It often has a blind eye for what it does not want. A belief of this kind is an active assertion as to what shall be real for us. True, it has a restricted sphere, but it is within this sphere that religious beliefs fall.[92] Our beliefs may vary, but "if religious hypotheses about the universe be in order at all, then the active faiths of individuals in them, freely expressing themselves in life, are the experimental tests by which they are verified, and the only means by which their truth or falsehood can be wrought out."[93] A religious belief was for James the most clear-cut example of the creative factor of man in making truth.[94] Founded upon a need of his nature, James when in a state of the "sick soul" had need of God, even of an Absolute

[91] A. S. Eddington, *The Nature of the Physical World* (New York, 1928), pp. 239–244.

[92] Bixler, *op. cit.*, p. 95.

[93] William James, *The Will to Believe*, Preface, p. xii.

[94] Bixler, *Ibid.*, pp. 102, 103.

and Infinite God though he generally favored some form of pluralism. And like a spoiled child enjoying good health, when in a state of "healthy soul" he had little need of any god whatsoever. In such a state, a man full of vim, vigour and vitality, was sufficient unto himself.[95]

The God that results from this attitude might be corporeal or spiritual. It emphasizes the affective state. Hence, the God that will seem good to a man in one state will not seem good to him when he is in a passion.[96] God will vary according to the disposition of the experiencer. The God which the dog makes of his stomach will be of the same order as the God of a man's "cheerful and expansive" feelings. Both are useful in satisfying their respective needs. Both neglect the part which the practical intellect must play in man's knowing the Absolute, Supreme Good, and in determining the means by which it may be attained.

A belief resting upon the affective states of man is scarcely distinguishable from a product of the imagination. The imagination paves the way for an easy surrender to ideas begotten from fear or hope. This attitude is absolutely unreasonable and unwarranted. It may lead to the acceptance of the God of traditional Christianity from the momentary excitement which its beauty produces in him, or from the need that he temporarily feels for a Divine Providence or a Supreme Good. The belief however has no rational root or foundation because it is not accompanied by any

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[95] *Ibid.*, chapters i and vii.

[96] "Unde secundum quod homo est in passione aliqua, videtur sibi conveniens, quod non videtur ei extra passionem existenti." 1–2, q. 9, art. 2 c.

sense of the importance of the decision, much less of a true decision. It can easily lead to the greatest superstition, as it has all too frequently. Nor will such a belief stand the test of action in life unless the belief, or creed adopted, had, by chance, real worth, real truth—being founded on reality.

We may now turn to the third *attitude of a critical, interested wish to believe—to believe the truth.* This attitude takes cognizance of the fact that beliefs are practical in their bearing upon our lives, and of the fact that man himself plays an important part in coming to a knowledge of them, though he can hardly be said to create truth by helping to make it. His part may be likened to an adventure that brings with it an anxious hope and joy in the prospect of finding a treasure. He must use the same *good common sense* in his inquiry concerning the object of his belief, that he would bring to any other problem that confronted him. He must be interested in the outcome, that is, he must apply his will to insure a thorough investigation of its truth.

If a man were desirous of mining a large body of ore he would first resort to certain exploratory work to make sure that he had such, before investing several hundred thousand dollars in equipment, sinking a shaft, and making ready to mine what in all probability would not be there. He would not be moved to make such a heavy investment in a purely hypothetical mine because a site which he had chosen alongside of a beautiful lake would make a splendid location for his mining community. To merely wish or will to have a mine there would be of little purpose. The wish would not place a body of ore at his disposal near this particular site. To undertake such a project would be

called fool-hardy. The successful operator indeed wills to have a mine, but he first looks for certain geological evidence that will give the project some feasibility. His whole procedure as he goes on will be one of doubting, that he may gain certitude before making his investment. For this reason, even after finding a geological formation which, from all surface indications, would give his potential body of ore a high degree of probability as to its existence, he drills the area thoroughly in order that probability may give way to certitude before staking his all on the venture.

This analogy may be applied to the object of faith. A man may believe in God inasmuch as he is desirous of finding the Absolute Good which is the object of his faith. But he must first will to know the truth of God's reality. He will carefully consider all the evidence connected with a knowledge, the outcome of which is of such vital importance to him. The first requisite will be a deep sense of the importance of this knowledge and of its bearing upon his life. This invariably issues in an interest for the truth. This interest is enlisted on the side of reason. Every claim for its truth will appeal to his enthusiasm to find the truth. However, this interested examination and reasoning must not be confused with passionate feeling which is affective and organic in foundation. Interested reasoning is an enthusiasm for ampler and higher knowledge here, as it is for the scientist in a more limited field. Interest is present on account of the importance of the gain at stake. The very wish for knowledge makes him more keenly sensitive to every clue. The wish to believe is the motive force which follows up the most hopeful clues.

"If the open mind be a requisite for truth-seeking

and truth-finding, the disposition to doubt is equally essential." Doubt steps in to test the validity of the claims of a hypothetical belief to truth, until truth is actually attained. "The antithesis to belief and disbelief," doubt, is "the corrective of credulity. It evokes the proving of all things, before holding fast that which is true. It is the cure of both ignorance and folly," as of a wish to believe what is not well founded in reality; and it is "a good that is instrumental to knowledge even though not quite the sole instrument to advance in knowledge."[97]

To put this in another way, the wish or will to believe, rightly understood, intensifies one's wish for knowledge in the abstract in virtue of the good at stake, or the importance of the outcome of one's quest. The interest in the outcome changes an abstract wish for knowledge into a wish for truth. For example, I am in the quest of the will of John Jones of Birmingham at Somerset House, as I have reason to believe it contains information which is important to me. I know he died about twenty years ago. There are many John Joneses, but there is only one Somerset House. As I make my quest after each John Jones my wish for the abstract John Jones becomes a wish that this concrete John Jones may be the one that I am looking for. If it is, my search is over, my wish is fulfilled; if not, at all events I have narrowed down my quest and search.[98]

From an impartial knowledge we seek to advance to concrete knowledge by testing the evidence that is before us. This begets reasoning, and after due testing through doubt, more knowledge. Eventually certitude

[97] F. R. Tennant, *op. cit.*, pp. 294, 295.
[98] Wilfrid Ward, *op. cit.*, pp. 173, 174.

is had in the truth of the object which we wish to believe in. The will to believe, like doubt, is a condition, but it is not the only condition in searching for truth. The will to believe, and an anxious doubt, go hand in hand. In this process the primacy must be given to the reason which weighs the evidence and determines its validity (checked in each stage of the search by a sceptical doubt). But this method of arriving at truth must of necessity be restricted to truths of the natural order, for truths of the supernatural order, such as "three persons in one God," must be taken on authority; the reliability of the authority, giving us this truth, may be checked by the foregoing method, but is powerless to prove its agreement with what actually is true in regard to the inner nature and life of God. Reason can discover God's existence by proceeding from effects to causes. From our observation of the phenomena of the universe we are able to rise to the necessity of an intelligent and free First Cause. The universe reveals God's presence and power but reveals relatively little of his inner nature. This knowledge can be had only on the authority of God revealing.

The procedure in obtaining a knowledge of supernatural truths may be briefly summed up as follows. First, there is a *cogitatio* or reasoning which includes doubt and a quest for truth, as of the existence of God. Then when the intellect is satisfied about the certainty of God's existence and the fact that He has revealed certain truths, reason may accept and adhere to same under the command of the will. This is called *assentio* or assent. Following these two steps we may have faith (*credere*) or belief, in the strict sense of the word, which accepts truths revealed by God on the strength

of His authority, similarly to the manner in which we may accept the teachings of a scientist on his authority in the field in which he is a specialist, although there is no comparison between the authority of the two.[99]

IV. FUNDAMENTAL CRITICISM

1. Man as the measure of truth.

The philosophy of common sense has always held, and still holds, that the human mind does not make truth. Truth is discovered, not made. The scientist in formulating hypotheses, does so, in the hope that his tests will confirm what he hopes to be true. He does not deceive himself into believing that he is making the laws of nature. He is rather intent on discovering its laws. He is ever in search of the truth which is back of the sensible phenomena of observation.

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[99] 1–2, q. 2, art. 1 c. "Faith implies assent of the intellect to that which is believed. Now the intellect assents to a thing in two ways. *First*, through being moved to assent by its very object, which is known either by itself (as in the case of first principles, which are self-known, and of which we have understanding), or through something else already known (as in the case of conclusions of which we have knowledge). *Secondly*, the intellect assents to something, not through being sufficiently moved to this assent by its proper object, but through an act of choice, whereby it turns voluntarily to one side rather than to the other. And if this be accompanied by doubt and fear of the other side, it is *opinion;* but if there be certainty, without such fear, it is *faith.*" This is precisely the difference between natural truths concerning God as known by reason, and super-natural truths concerning Him as known by faith. 2–2, q. 1, art. 4 c. Presented more simply:

If the *assent* is caused *directly by the object* we have *understanding*, as of first principles; if the *assent* is caused *indirectly by the object* we have *knowledge*, as of conclusions drawn from first principles; if the *assent* is caused *by choice* of alternatives offered by the intellect, *with fear* of the opposite being true, we have *opinion;* if the *assent* is caused *by choice* of alternatives offered, *with no fear* of the opposite being true, we have *faith.*

Truth may be considered in two ways, namely, ontological truth, and logical truth. The former is an attribute of objects or things known by us and is objective in character; the latter is an attribute of our knowledge of things as a result of a judgment, it is subjective in character, and may be true or false. When we speak of ontological truth, we say that every existing thing is true inasmuch as it is the expression of an idea which exists in the mind of God. Truth then, resides first in the mind of God, which conceives eternally the ideas of His works. An analogy is had in human creations. "For a house is said to be true that expresses the likeness of the form in the architect's mind; . . . In the same way natural things are said to be true in so far as they express the likeness of the species that are in the divine mind." Thus "a stone is called true, which possesses the nature proper to a stone, according to the preconception in the divine intellect." Truth therefore "resides primarily in the (divine) intellect, and secondarily in things" inasmuch as they are created in conformity with these Eternal Ideas.[100] And man is said to possess truth when he knows things as they are. The cause of his knowledge is ultimately the thing that is known. Man possesses truth when he has an idea which is like to the idea embodied in the thing itself. But God is the measure of truth. "Reality has ontological truth for the human mind . . . because it is essentially and antecedently in accord with the divine mind from which it derives its intelligibility."[101]

The philosophy from which faith as the *will-to-believe* receives its inspiration is founded on the notion

[100] I, q. 16, art. 1 c.
[101] *De Veritate*, q. 1, art. 2.

that man is the measure of truth. Truth grows, evolves, but is never absolute. It is always in the making. Professor Schiller, whose faith is akin to that of James, calls his philosophy "humanism" in order "to emphasize the dependence of knowledge and truth on human nature and on the moral and religious demands. His emphasis is on the creative and authoritative rôle of the concrete individual."[102] "'Truth' and 'reality' are valid . . . because we have 'made' them."[103] "Truth happens to an idea. It *becomes* true, is *made* true by events. Its verity is in fact an event, a process; the process namely of verifying itself, its veri-*fication*. Its validity is the process of its valid-*ation*."[104] Truth therefore is made by our own exertions. And the "truth" and "reality" of our beliefs are the outcome of the pragmatic method, an "*attitude of looking away from first things, principles, 'categories', supposed necessities, and of looking towards last things, finite, consequences, facts.*"[105]

But Pragmatism "at best stands for no particular results. It has no methods, and no doctrines save its method . . . it lies in the midst of our theories, like a corridor in a hotel. Innumerable chambers open out to it. In one you may find a man writing an atheistic volume; in the next some one on his knees praying for faith and strength; in a third a chemist investigating a body's properties. In a fourth a system of idealistic metaphysics is being excogitated;

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[102] R. B. Perry, *Philosophy of the Recent Past* (New York, 1926), p. 195.

[103] F. C. S. Schiller, *Studies in Humanism*, p. 462.

[104] William James, *Pragmatism*, p. 201.

[105] *Ibid.*, pp. 54, 55.

in a fifth the impossibility of metaphysics is being shown. But they all own the corridor, and all must pass through it if they want a practical way of getting in or out of their respective rooms."[106] In other words, truth can be known only by the pragmatic method. We make truth. We may believe that which harmonizes with our attitude towards the universe. We may have religion with or without God. "If the hypothesis of God works satisfactorily in the widest sense of the word—experience shows that it certainly does work—it is true."[107] The idea of God for you, then, is true as long as it "works." It need not "work" tomorrow. Truth and reality are man-made and subjective.[108] Our beliefs are what we *will* them to be. Their reality and truth are the outcome of an act of the will upon some "live" and personal need. All that is exacted, is that the outcome have an "intimate and continuous connection with my life." Acts of belief and acts of the

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[106] *Ibid.*, p. 54.

[107] *Ibid.*, p. 299.

[108] "*Reality means simply relation to our emotional and active life. . . . The fons et origo of all reality, whether from the absolute or the practical point of view, is thus subjective, is ourselves. . . . Our own reality*" makes other realities, and "*is the ultimate of ultimates for our belief. . . .* As Descartes made the indubitable reality of the *cogito* go bail for the reality of all that the *cogito* involved, so we all of us, feeling our own present reality with absolutely coercive force, ascribe an all but equal degree of reality, first to whatever things we lay hold on with a sense of personal need, and second to whatever further things continuously belong with these. . . . The world of living realities as contrasted with unrealities is thus anchored in the Ego, considered as an active and emotional term. . . . *Whatever things have intimate and continuous connection with my life are things of whose reality I cannot doubt. Whatever things fail to establish this connection are things which are practically no better for me than if they existed not at all.*"—William James, *The Principles of Psychology*, II, pp. 293–298.

will "are two names for one and the same psychological phenomenon."[109]

In cricitism of such a notion of truth, it has already been pointed out that man is not the measure of truth. The truth of reality exists first in the mind of God, then in things, and finally we know this truth inasmuch as we know things as they are. The fundamental reason for the erroneous notion of truth as held by James, Schiller and others, lies in the attempt to reduce all knowledge, in its origin, to the method of hypotheses employed by the physical sciences. And in the case of truths which cannot be immediately reduced to the first principles or axioms of thought, there is indeed a need of testing out the hypothesis as has been indicated in the previous chapter in which we evaluated faith as a hypothesis. Hypotheses are necessary for example, when there is a possibility of error in drawing a conclusion from a limited number of facts. Several solutions are suggested. One of them might be true. The true one is likely to be, or may possibly be confirmed by resorting to experimental tests. Thus we know that there are laws of nature which govern the interaction of chemical elements. The nature of these laws are sought by the chemist and physicist in their experiments. The hypotheses which they attempt to confirm are a hypothetical formulation of truths that may exist in reality. They are truths to be discovered. They are not made by man. Thus, the scientist by his experiments daily admits that truth need not be verified to exist. It is because truth does exist in reality that it can be verified by the human mind.

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[109] *Ibid.*, p. 321.

There are many truths which we hold with certitude, without ever submitting them to the method of hypothesis, because we have sufficient objective evidence for them. But instead of holding to the objectivity of the thing believed, James grounds all beliefs in the need that we have of them. If we need them, if we cannot live without them, we must find reasons for their adoption. We must *will* them into being. This is tantamount to making ontological truth of what was not even logical truth before we willed to believe it.[110] The human mind gives truth reality outside the mind by its process of verification and validation when the belief "works." If this were true, then if a man believed that the moon was made of green cheese, if he had need of this belief, and it worked, the mind would give reality to a moon of green cheese. Foolish as this sounds, this is what naturally follows if we insist that thought adds to reality, instead of representing it.

In answer to a questionnaire on religious belief sent by Professor J. B. Pratt, being asked "Why do you believe in God? Is it . . . because you have experienced His presence?" James replied, "No, but rather because I need it so that it 'must' be true." God is accepted "not so much as a real existent Being" as "a powerful ally of my own ideals."[111] For James the existence of God possessed only a purely logical validity, and that of a purely logical subject. Very much like the transcendental and autonomous lawgiver of Kant, such a belief is a postulate of our moral needs. It is little removed from the "As If"

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[110] Note: *Ontological truth*, in relation to the human mind, resides primarily *in things; logical truth*, primarily *in the mind.*

[111] *Letters*, I, pp. 213, 214.

of Hans Vaihinger, whose God is nothing better than a fiction that is useful. To Vaihinger the usefulness of the idea of God is no criterion of His objectivity; for the pragmatism of the will-to-believe, God takes on reality, His existence is made true if the hypothesis "works." The belief "works" because we will it into existence.

Pragmatism thus resolves itself into a contradiction inasmuch as the moment that we choose our belief, it ceases to be a belief because the hypothesis is not objective but *subjective*; its reference is not to an object assumed real, independent and objective, but to a hypothesis, subjective in character, which the individual feels he needs. And though the hypothesis is said to be confirmed since it is an application of the proposition that "Truth is that which works, and that which works is true," this is itself a false conversion of "All true propositions work" into "All propositions that work are true." This is not supported by the practise of the empirical sciences. They use hypotheses to "discover" truth. Interest motivates the questioning but does not determine the answer. As a norm for truth, the pragmatic proposition will detect error, but it will not establish truth. There is of course the possibility that the pragmatic proposition may, by chance, be identical with "All true propositions work" and then it does "work"; otherwise it is a vicious circle which refutes itself because it requires absolute truth.[112]

Furthermore, even when "that which works is true," why does it work? "What is there in the nature of any theory (which means, ultimately, in the nature

[112] William E. Hocking, *Types of Philosophy* (New York, 1929,) pp. 163, 164.

of the Universe) which makes that theory successful, and upon which its continuous applicability to practise depends? . . . We must certainly say of any principle that *if* it works (in the long run) it is true (or probably true, and increasingly so), but it is a totally different thing to say that *because* it 'works,' *therefore* it is true . . . James never seems to have distinguished these two issues from each other, nor to have recognized the fundamental fact that philosophy is but little concerned with a mere 'If,' while it is essentially its proper task to deal with 'Because.' 'If' is (here) a question of ascertainable fact, while 'Because' is always a matter of distinctly rational thought; and these two issues must never be confused with each other, much less be regarded as one and the same." The second can never be grounded merely and solely upon the first.

"'If' a theory works can be tested by experiment; but no experiments alone will determine the 'Because' of its success. Trial, experience, experiment—all of which are concerned with facts and with 'If'—may ascertain the success, the 'working' of a theory, but something more is necessary to explain the nature of its truth."[113]

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[113] J. E. Turner, *An Examination of William James's Philosophy* (Oxford, 1919), pp. 12, 13, 14.

"If the pragmatist contention, then, is well founded—if the true is essentially what 'works'—truth itself is forever unattainable. . . . Then there appears to be another serious defect in the pragmatist theory of the nature of truth. If we say that the test of truth is that it 'works', then, this assertion being, of course, itself true, the question at once arises—How is its own truth to be established? Now, obviously we cannot here apply that pragmatist test itself—that truth is what 'works' —without at once committing the logical fallacy of assuming as true the very question at issue; either, then, this principle must remain for

Since such a notion of truth is not tolerated in any other field of knowledge, least of all in the physical sciences, why should it be tolerated in regard to our religious beliefs? Elsewhere we seek for truth, and if our quest is successful, we find it there awaiting our discovery. The sidereal system of this universe may be mapped and charted. The astronomer can compute the speed with which each planet follows its own particular course. The movements of the planets can be accurately determined. The human mind discovers these truths. It cannot be said to give them reality. In other words, that which exists independently of man cannot be measured, in the sense of being caused, by him. So too, man neither gives truth reality, nor does he bring the reality of truth into being. He merely discovers truth which is already there.

In a like manner, the proposition that "the true is useful" or that "truth is useful" actually presupposes the existence of truth. It is something which James himself sought to discover, something he wanted, in proposing a hypothesis which he acted upon to find out whether it was such in reality. He hoped to confirm what he wanted to be true. In physical science it was useful to discover Newton's law of gravitation. The hypothesis was acted upon, tested, and found to be true. There are many other useful laws in nature which as hypotheses cannot be tested by one man or by one generation. And unless some such hypotheses are true eternally, and independently of our testing them, pragmatism itself becomes a

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ever unproved; or it must be proved by a method which is not pragmatic."

"It may be said, then, in general that the pragmatical view of truth is always defective. . . ."—*Ibid.*, pp. 14, 15, 18.

meaningless doctrine. If such propositions are true, then there are truths of which pragmatism can give us no account.

To make truth a process of verification is to make truth identical with its proof. It is like pursuing pursuit. What we verify is that a thing which we believed to be true is in fact already true. Verification and testing by action, the *modus operandi* in the will to believe, presuppose that truth is something distinct from any process of proof or verification. To attempt to make a belief true is comparable to trying to lift oneself by one's boot straps.

As a method which has partial application, as in the experimental sciences, pragmatism is valid to the extent that the consequences of a hypothesis, though they cannot constitute its truth, may reveal it. The consequences from experimentation on the hypothesis are its *ratio cognoscendi*, but never its *ratio essendi*.[114]

Despite its contradictions and inconsistencies, "truth" as conceived by the philosophy of the will-to-believe, receives an all too ready acceptance in our day. And though James gave form to the pragmatic method so prevalent in American life and thought, he none the less spoke for philosophers of other nations who have given preëminence to a philosophy that is non-intellectual in its approach to the problems of life and religion. Utilitarianism, the theory of evolution, and an exaggeration of the use and validity of the method of the physical sciences, have all made for the credulous acceptance of the fallacy that truth is ever in the making, that it is continually evolving—and hence is only *relative*. What may be true for John Jones need

[114] Wm. Pepperell Montague, *The Ways of Knowing* (New York, 1925), p. 147.

not be true for me. If you do not want a God because He does not fit in with your view of the universe, then He does not exist—for you. One might as well say that if he does not want the eighteenth amendment because he does not care to be denied his daily glass of gin, that the eighteenth amendment does not exist for him. True, he can act as though it did not exist for him, but in reality the law does exist. And if he has the misfortune to have a prohibition officer accost him as he is making his way home with next month's supply of gin, he will have to take cognizance of the law. His attitude towards the laws of the country will necessarily be affected, regardless of what he wills to believe.

The fallacy that truth, as understood by the philosophy of common sense, is continually evolving fares no better than that which contends that truth is only relative. We are told that this is the only scientific attitude which will explain present facts and at the same time serve to open the way to further knowledge, permitting experimental verification, and the application of hypotheses to new situations. The trouble with such a method is that it leaves all the "problems of life" out of consideration because the problems of philosophy fall outside the scope of the scientist. All that it sees is *one* nature at a time, and this through *one* instrument of research. If evolution is understood in the sense of taking cognizance of a First Cause, God, it is indeed one possible explanation of the universe. To make it a self-contained, and a going concern, that has no need of God is to be hypnotized by the *how* of a possible process, failing to account for its origin and plan, the *why* of the process.

That was what happened in the last century. The first realization of evolution was therefore negative. It did away with God. It made for despair. The results were bad. Man was taught to think of all things as in process of change and growth. He was robbed of his golden age, of his origin from the Hand of God. He was debased by his origin from sub-men. The primordial aristocrat in man grieved at this debasement until the present century filled him with the democrat's pride in the possibility of having supermen for descendants. Hand in hand with the new hopes given him by the evolutionist, pragmatism endowed man with creative powers. His was the glorious task of helping God "to be more effectively faithful to his own greater tasks."[115] All things were evolving, including truth and reality. The present anti-intellectualistic attitude of holding that truth is constantly evolving, derives its strength from advances made in history, anthropology and the social sciences. The discovery of the humble origins of much that is cherished in culture and religion has engendered the modern fallacy of *geneticism* which is so intent on evaluating all things in terms of their historical origins as to deprive things of value because they have origins.

Inconsistency is the one great sin of any thinking. But inconsistency runs through every attempt to justify man as the measure of truth—to make truth depend upon the individual for its validity and reality. In the arguments in favor of truth as conceived by the philosophy of the will-to-believe, its defenders are making use of the very conception of truth which they are trying to refute; they are claim-

[115] William James, *The Varieties of Religious Experience*, p. 519.

ing for their doctrine the very kind of truth which they say is no truth at all. Consistently they should do one of two things: either give up their doctrine of truth; or else cease claiming it as true.[116]

Their belief is reduced to a *credo ut intelligam*, but it is shorn of its complement *intelligo ut credam* which makes for a reasonable faith. The Scholastics, and the traditional notion of faith, always insisted that the two be taken together. *Intelligo ut credam* paves the way and makes for a reasonable act of faith. The approach is rational and valid. We believe because we know that God exists and that He has revealed certain truths to us. *Credo ut intelligam* follows as a consequence. Assured that God exists and that He has spoken, we believe that which God has revealed in order that we may understand the better those things that pertain to God and the supernatural order. This is the very *ratio* of the traditional concept of faith, and of all Catholic theology.[117]

The will-to-believe, is a non-intellectual approach to God. It is a blind act of faith. We *will to believe* that we may know what we want to know. We even make the truths of our belief. Applied to God, what "works" is not the existence of God, but *belief* in the existence of God. And since experience is made

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[116] James Bissett Pratt, *What is Pragmatism* (1909), pp. 128-130.

[117] St. Augustine many centuries earlier saw the relation between the traditional notion of faith and reason in the light of the principles which were later formulated by the Scholastics in the maxims, "credo ut intelligam," "intelligo ut credam." Thus in *De Prædestinatione Sanctorum* he says, "Nullus quippe credit, nisi prius cogitaverit esse credendum"; ("Soliloquia," II, 5.) And in *De Vera Religione*, "Nostrum est considerare quibus vel hominibus vel libris credendum sit." (*Op. cit.*, XXIV ff).

synonymous with reality, God's existence can never be known for the reason that He is not capable of direct intuitional experience, save in the supernatural order which is ruled out of court by the philosophy of pragmatism.

2. The philosophy back of the will-to-believe does not realize the ultimate end of man.

The philosophy that one adopts or formulates is of the greatest importance because of its profound influence on a person's life. It influences every sphere of life. Nowhere is this more clearly seen than in its effects upon one's faith and religious convictions. A sound philosophy begets a sound theology. The one is the product of natural reason operating under the light of natural principles; the other is the result of the same natural reason, but proceeding from principles supernaturally revealed. Theology is a natural explanation of supernatural truths. Sound philosophy therefore makes for sound theology; erroneous philosophy makes for erroneous theology.

The philosophy of the will-to-believe finds a ready acceptance in a pleasure loving world, which is more intent upon being entertained than on doing solid thinking and seeing issues through to their logical conclusion. Thinking is work. To think about the ultimate problems of life might even have the uncomfortable result of bringing about the conviction that after all this life is not the beginning and end of all things. Why be unnecessarily disturbed about the ultimate realities of life when one can, with good grace, accept a philosophy which gives one the right to will what one wishes to believe? Then the daily

round of life need not be concerned about right and wrong. All that is necessary is that one be happy in that which gives him pleasure. But pleasure, taken by itself, is never a principle of progress, but of stagnation. Its tendency is to make us dig in as comfortably as we can at the point at which we now stand. Yet that is the fundamental principle back of the will-to-believe. We make our beliefs. They are in accord with our attitude towards the universe. If we do not need God, He does not exist for us. "There is really no scientific or other method by which men can steer safely between the opposite dangers of believing too little or too much."[118] So despite its so called safeguards, pragmatism in the last analysis, permits a man to believe what he wants to believe. The implication is that whatever is comfortable is true—must be true. Consequently, any man may believe anything that he needs to believe in order to give himself peace of mind. It matters not what his norm of morality might be. In fact, there is no such norm. The norms of morality like all other truths are in the process of becoming. We make them. Yet we venture to say that instead of asserting that a man may believe that which is necessary for his peace of mind, it would be more truthful to say that many believe what they will-to-believe to salve their conscience. This, in a few words, epitomizes the creed of the Modernist, however its champions try to disguise it. No matter how great the illusion, if it is pleasing, if it satisfies us, we may rest content with it. To any rational, sane thinking individual such a conclusion is out and out intellectual—to say nothing of moral—suicide.

[118] William James, *The Will to Believe*, Preface, p. xi.

The "prophets" of the sixteenth century prepared the way for the will-to-believe when they enunciated the right of private interpretation in regards to supernaturally revealed truths. They have been aided in their work by the self-appointed prophets of Science. We say "self-appointed" because the *bona fide* scientists have, for the greater part, been content to leave philosophy to the philosophers and theology to theologians. However, their more ambitious confrères desired to "emancipate" man completely from the slavery of supernaturally revealed truths. They would have no dogmas save those proclaimed in the name of Science. And because the world now has no need of supernaturally revealed truths, it no longer has need of theology, though it does have need of beliefs. A man must live up to his beliefs or he will soon come to believe as he lives. Accepting the *dictum* of the prophets of Science, the world now looks for results, for consequences. Its attitude is one of "looking away from first things, principles, 'categories', supposed necessities; and of looking toward the last things, fruits, consequences, facts." It is only concerned with the practical side of truth. But this attitude together with the self-imposed limitations that accompany the acceptance of a method of knowledge which restricts man to the truths obtained by the empirical sciences, has resulted in making men slaves to the instruments of their own making. Their philosophy is impotent to rise above its instruments of research. And since men must have beliefs and religion, they are given a "god" and a "religion" in terms of whatever science holds sway at that time. Psychology gave us a "god" that was a mental projection. Emergent evolution

tells us that God is in the process of becoming. Today He is a Space-Time Deity [119] or the "Principle of Concretion."[120]

Philosophy for James, was not a specialized culture wholly aloof from the interests and concerns of everyday life.[121] Recognizing the inadequacy of an Absolute God of intellectual abstractions, he tried to effect a reconciliation between absolutism and plural-

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[119] "In this eternal manufacturing of a God—which is really the God of Comte, 'Humanity'—you co-operate, but in such a negligible way that you would be a great fool indeed to take much notice of that privilege. Looked at from the simplest human level, as a semi-religious faith, the Time-cult seems far less effective, when properly understood, than those cults which posit a Perfection already existing, eternally there of which we are humble shadows. It would be a very irrational conceit which, if it were given the choice, would decide for the 'emergent' Time-god, it seems to me, in place, for instance, of the God of the Roman faith. With the latter you have an achieved co-existent supremacy of perfection, impending over all your life, not part of you in any imperfect physical sense, and touching you at moments with its inspiration. With the other you have a kind of Nothing, which it is your task, perspiring and mechanical-weaver of the wind that you are, architect of nothingness—to bolster up and somehow assist into life and time, in a region just out of your own reach. But the moment eventually your strenuous creation, the embryo-god, was brought out into daylight, it would no longer be anything more than a somewhat less idiotic *you*. Could you penetrate that distant future where what is God to you (as you are god to your dog) is to exist, you would behold the same world, but one storey up, still perspiring, fighting and fuming to give actuality to the existence of the next-storey-up. A more unsatisfying, as well as foolish and misbegotten, advertisement of divinity could scarcely have been found to stimulate the tired business man or the unhappy person born to the dullest mechanical labour, sorely in need of comfort. The vociferous priests of this God of Progress seem almost to be mocking us; for they are at great pains to elucidate their pretensions, and yet any child that gave itself the trouble would at once perceive how hollow they were." —Wyndham Lewis, *Time and Western Man*, pp. 438, 439.

[120] A. N. Whitehead, *Science and the Modern World*, p. 250; *Process and Reality*, p. 523.

[121] J. E. Turner, *op. cit.*, p.76.

ism. Yet with all his excellent qualities in bringing life to the ultimate problems of the universe, contradictions were inevitable as he was not a metaphysician to the manner born. Deprived of the aid given man by Revelation he was doubly handicapped. Still, personally, he was convinced of the importance of man's "union with that higher universe" which "is our true end." Whether this would hold true for another depended upon that individual's spiritual attitude to the universe. The issue was thus centered wholly upon the individual thinker and his "attitudes of hope and expectation." His view of these problems was from "the wrong end of the telescope"; be considered them exclusively from their "connection with us."[122] And though he admitted that "We can *study* our God only by studying His creation,"[123] the result must be in conformity to our "passional nature" and the consequent of a will-to-believe, instead of an interested will to know the truth.

Hence, though in its inception, pragmatism was a reaction to the intellectual abstractions of nineteenth century science—though it declared that it would not be content with such abstractions in philosophy and religion—the method of science was retained. Nay more, that method was exalted. It was the basis of a new philosophy. Applied to psychology, it has made man a complicated animal, driven by reflexes, which are sometimes dignified with the name of will. Man's reason has become an apologist for his actions instead of directing and controlling his life, so that today, a physical and psychological

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[122] *Ibid.*, pp. 21, 22.

[123] *Pragmatism*, p. 109.

mechanism have taken the place of the Truth which makes man free—of the Truth of which God is the measure, and which, in proportion as we are measured by it, makes us co-heirs with Him who is the Way, the Truth and the Life.

PART III

CONCLUSION

CHAPTER IV

THE TRADITIONAL AND CATHOLIC NOTION OF FAITH

Inasmuch as a critical study has not been made of the notion of faith as instinct we shall not attempt to show the relation of the three modern concepts of faith to the Catholic idea of faith. And since this is a philosophical study there is no need of treating faith as a supernatural virtue and act. Still, in contrast to the modern notions of faith, in which God can not be known rationally, but is approached and known only by faith as a hypothesis or a postulate, by the wish or the will-to-believe, or by a more or less blind instinctive act, we shall briefly set forth the philosophical aspect of the Catholic concept of faith which has been firmly adhered to throughout the ages because it employs the same good *common sense* to the existence of God and the object of faith as is applied to other problems of life. Saint Thomas Aquinas points out that there are three ways in which man may know things. We can know truths: first, inasmuch as they are revealed to us by God Himself; secondly, when they can be held with certitude because they flow from first principles or can be immediately attached to a first principle, e.g., that I exist, or that God exists; and finally, a conjectural or hypothetical knowledge when our judgment is based upon incomplete induction, e.g., the conclusions of empirical

science strictly so called.[1] The modern notion of faith ignores the first two ways of knowing truth. It limits itself to the lowest kind of knowledge, a knowledge that is conjectural, and which, at its best, is only one of problematic certitude. Hence, accepting the premises and the self-imposed limitations of science, as it does, the modern notion of faith can never arrive at a certain knowledge of the existence of God—of Him Who is the object of faith. For He is, by His very nature, beyond the scope of science—as is any truth which is properly the conclusion of metaphysics. Hence the object of faith will always remain beyond its scope whether we consider such truths as are only relatively supernatural or absolutely supernatural.

The absolutely supernatural truths which are the object of faith are those which man cannot discover of himself, for example, that there are "three persons in one God" or that "Jesus Christ is the Second Person of the Blessed Trinity." The relatively supernatural truths are those which some men here or there cannot discover, yet can be known by reason. Thus from our observation of the universe we are able to rise not only to the necessity of an intelligent First Cause, but we can also know, by reason, some attributes of His nature—such as that God is good, God is omnipotent, God is free, et cetera. The relatively super-

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[1] "Respondeo dicendum quod tripliciter aliquid cognosci potest: uno modo per revelationem. . . . Alio modo homo cognoscit aliquid per seipsum, et hoc certitudinaliter. . . . Certitudo enim non potest haberi de aliquo, nisi possit dijudicari per proprium principium. Sic enim certitudo habetur de conclusionibus demonstrativis—per indemonstrabilia universalia principia. . . . Tertio modo cognoscitur aliquid conjectualiter per aliqua signa. . . ."—1-2, q. 112, art. 5 c. Also I, q. 57, art. 3; 3, d.23, q. 1, art. 2 ad 1; etc.

natural truths,[2] therefore, are on the border line between the finite and the Infinite, between the natural and the supernatural. They are discoverable by reason, but are also revealed. And because they are also revealed they are called relatively supernatural, as they may well be, because when proved by reason alone the proofs do not fully satisfy all men.

St. Thomas goes further into this question when he treats of faith explicitly. After asking the question, "Whether it is necessary to believe those things which can be proved by natural reason?" he replies that "It is necessary for man to accept by faith not only things which are above reason, but also those which can be known by reason: and this for three motives [or causes].

"*First, in order that man may arrive more quickly at the knowledge of Divine Truth.* Because the science to whose province it belongs to offer to prove the existence of God, is *the last of all to offer itself to human research*, since it *presupposes many other sciences*: so that it would not be until late in life that man would arrive at the knowledge of God.

"*The second reason is, in order that the knowledge of God may be more general* [i.e. *widespread*]. For many are unable to make progress in the study of science, either through dullness of mind, or through having a number of occupations and temporal needs, or even through a laziness in learning, all of whom would be altogether deprived of the knowledge of God, unless Divine things were brought to their knowledge under the guise of faith [i.e., set before them by way of faith].

[2] 2–2 q. 1, art. 5. Father Vincent McNabb gives an excellent treatment of this matter in his *Oxford Conferences on Faith* (1905).

"*The third reason is for the sake of certitude.* For human reason is very deficient in things concerning God [i.e. has many shortcomings in divine things]. A sign of this is that philosophers in their researches, by natural investigation, into human affairs, have fallen into many errors, and have disagreed among themselves. And consequently, in order that men might have knowledge of God, free of doubt and uncertainty, it was necessary for Divine matters to be delivered to them by way of faith, being told to them, as it were, by God Himself Who cannot lie."[3]

Hence, although man can attain a knowledge of the truths of natural religion, i.e., truths that are relatively supernatural, by reason, still, intellectual proofs are not likely to bring a living conviction of these to the great mass of men for the reasons alleged by St. Thomas. And even if men did reason out all these truths, intellectual proofs would still fail to satisfy all men because mere intellectual activity is not the only avenue of truth. It is true, that the idea of causality gives the world an intellectual setting so that man possessed of a *cor sincerum*, and reflecting upon the universe, will come to know the existence of a supreme creative and directive intelligence. But faith is necessary because by it man has a better way of knowing even relatively supernatural truths.[4]

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[3] 2–2, q. 2, art. 4.

[4] ". . . faith has two objects and two duties. It deals, first of all, with those mysteries of God's being and man's being and activity which no natural fact is luminous enough to bring home to us. Its duty is to promulgate the absolutely supernatural. But since men as a rule do not act up to all the powers either of knowing or willing common to human nature, it deals, secondly, with other truths concerning the being and activity of the Creator and creature; *not indeed to promulgate what the reason of man has itself promulgated, but to support what the reason of most*

However, the act of faith is reasonable and rational in itself, for by it we accept truth on the word of God just as every day we accept truths on the word of man. The greater part, and the most important part of the knowledge that we possess, is the gift of others. No matter how keen of intellect we may be, no matter how observant our senses, no matter how great the store of knowledge which we may rightly call our own—it is as nothing when compared with that which we have derived from others. It is to the testimony of others that we turn for our knowledge of the past, for much of our knowledge of the present, and for almost all that we know of the conclusions of science. And if we accept truth so freely from men, then it is reasonable to accept truth from God. For since dependence on others is a very law of our nature, and since we are dependent upon others for most of our knowledge, then the higher the authority of the one who speaks to us, the more reasonable it is to accept that person's word, especially when that person is God, Who is Truth and Who knows all things.

The ordinary man must rely upon the authority of a physicist if he wishes to know the findings of radio-activity, and so too, man must have recourse to and must rely upon authority in religion, especially if he wishes to know the mysteries of religion and those truths concerning God's nature and his relations with God, which can not be known by reason alone. For man is finite, and therefore cannot know the Infinite although he may know some truths about the Infinite. But man, as a rational creature, need not

men will fail to accept save at the bidding of a teacher and in the obedience of faith."—Vincent McNabb, *Oxford Conferences on Faith* (1905), p. 58.

accept those supernatural truths until he finds an authority competent to speak on these matters. This authority (for Catholics and non-Catholics alike) itself is not a self-evident axiom. It is a truth arrived at by a process of reasoning. The process of reasoning will embrace such truths as the existence of God from the visible things of the world, from which man may proceed to the divinity and authority of Christ, going on to a consideration of the fact that He entrusted His revelation, teachings and authority to a Church which He founded—the Catholic Church. Hence, the responsibility of our decision rests not on authority but upon our own private judgment, which is a reasoned truth. This is why the truths of faith have a place for private judgment, i.e., following reason, and a place for authority which is a consequent of reason. But the assent given is voluntary. It is an act of man's free will. The act of faith, therefore, is seated in the intellect, but it is nevertheless directed by the will. Hence, the Catholic by his act of faith places a rational act which logically follows from premises firmly established by reason, and confirmed by history and by the experience of ages; whereas, to place an act of faith in accordance with the modern notions of faith is to commit intellectual suicide. It is equivalent to forfeiting all right to a rational approach to the truths of religion. It precludes a rational act of faith.

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